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MOTHS .- Vol. II.

BY

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PREFACE.

The three families dealt with in the present volume, the Arctudæ, Agaiistidæ, and Noctuidæ, are very closely allied and in some cases difficult to discriminate. The Arctudæ may be distinguished from the Noctuidæ by vein 8 of the hind wing anastomosing with vein 7 to the middle of the cell, though a few of the lower forms of the Noctuidæ have a similar structure, especially in the Sarrothripinæ, which are closely allied to the Nolinæ, the lowest subfamily of the Arctudæ, and almost grade into them

The Noctuidæ are a large family of Moths dominant at the present day, and consist of several subfamilies and a very large number of genera and species with such slight diversities of structure and pattern as to make a satisfactory classification of them far more difficult than of any other family. The lowest forms are those of which the larvæ have four pairs of abdominal prolegs, and the perfect insects have vein 5 of the hind wing fully developed and from the centre of the discocellulars—this ancestral form being only found in some Deltoidinæ and Sariothinipinæ

From this type has developed, firstly the subfamilies with vein 5 of the hind wing fully formed (1) Deltoidinæ, (2) Focillinæ, (3) Quadrifinæ, (4) Gonopterinæ, (5) Stictopterinæ, (6) Eutelinæ, (7) Sarrothripinæ, (8) Palindiinæ, secondly, the subfamilies which have vein 5 of the hind wing obsolescent (1) Acontiinæ, (2) Trifinæ

The other family, the Agaristide, is a modification of the Noctuide, with the antenne more or less dilated towards the extremity, and consists of a few genera with gaily coloured species of diurna or crepuscular habits

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In this volume, as in the first, Cotes and Swinhoe's Catalogue has been of the greatest service, and has saved all the time and trouble that would, without its help, have been expended on a preliminary search for references. Every reference quoted in the present work has been verified by the Editor from the original publication, a severe test to apply to a book containing so large a synonymy as Cotes and Swinhoe's

No attempt has been made in this or in the preceding volume to decide finally whether many of the forms described are entitled to rank as species, varieties, geoseasonal forms Much more graphical or study of structure, and especially of the claspers of the male insect, will be needed before similar questions can be satisfactorily determined The main object of the present work is to enable students to identify and classify the various forms, and thus to establish a workable basis for further enquiry as to their relations to each other With this end in view, the plan adopted has been to unite under one specific heading those forms having close affinities in pattern and colour, merely noting their differences, whilst forms having a more remote relationship receive comparative, and those still more distantly related non-comparative, descriptions In the same way groups of forms nearly allied in structure constitute sections of genera, others more remotely related form genera, subfamilies, &c.

Two subfamilies of *Nocturdæ*, the *Focilinæ* and *Deltordinæ*, are not included in this volume, but will be placed at the commencement of the next, which will also contain the families *Epicopiidæ*, *Uraniidæ*, *Epiplemidæ*, and *Geometridæ*. A considerable portion of the next or third volume is ready for printing, and the whole will, it is hoped, be concluded in the course of the year

G. F HAMPSON.

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Family ARCTIIDÆ

A family of moths mostly of noctuinal or crepuscular habits and with narrow elongate tore wings, or in some genera with short broad wings, whilst Nyctemera and its allies are diminal and

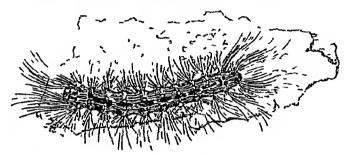


Fig 1 —Larva of Philagria entella 1 (From Hmpsn III Het 1x, pl 175, fig 8)

have ample wings. Palpi usually short and poriect. Figurum present. Fore wing with vein 1a separate from 1b, 1c absent. Hind wing with veins 1a and 1b present, 1c absent, vein 8 arising from 7 generally at or beyond the middle of the cell

Lurva with all the prolegs present, clothed with hairs, and forming a cocoon

Key to the Subfamilies

a Thorax and abdomen stoutly built
b Thorax and abdomen slender
a' Fore wing without tutts or lines of raised
scales
a' Fore wing not produced at apex
b'' Fore wing slightly produced at apex
b' Fore wing with tufts or lines of raised
scales

1 Arctinæ
2 Lithosinæ
3 Nycteolinæ
4 Nolinæ

Subfamily ARCTIINÆ

A thickly-built section of the Arctidæ comprising the "Ermine" and "Tiger" moths and their allies Proboscis often absent or very minute. The retinaculum of the male consists of a strong bar from the costal nervure of fore wing instead of the usual tuit of hair, and by this character those species which approach the Nocturdæ in the structure of veril 8 of the hind wing can be discriminated. The legs are usually smooth and the spins minute.

Larva with five pairs of prolegs and clothed with very long hair,

which it spins into the cocoon

Key to the Genera.

a Fore wing with veins 7, 8, 9, 10 stalked Fore wing with vein 11 quite separate fiom 10 a2 Hind wing with veins 3 and 4 from cell a3 Hind wing with veins 6 and 7 from a4 Hind tibiæ with two pairs of spurs Fore wing rather long and nnirow a⁶ Palpi extending slightly beyond the frons Wings covered with wellformed scales as Fore wing with the outer margin somewhat erect 1 Spilosoma, p 3 b Fore wing with the outer margin obliquely rounded 6 ALPHEA, p 20 67 Wings clothed with hairlike scales and slightly diaphanous 2 THYRGORINA, p 11 be Palpi not extending beyond the frons a7 Head clothed with long hair Ocnogyna, p 18 b7 Head smoothly scaled 5 Pangora, p 19 c⁶ Palpi extending far beyond the frons Areas, p 24 b' Fore wing short and broad 3 ARCTIA, p 15 64 Hind tibiæ with one pair of spuis Palpi extending beyond the 8 CRFATONOTUS, p 26 frons b° Palpi extremely minute 9 Phissama, p 29 b' Hind wing with veins 6 and 7 stalked a4 Hind wing with the inner margin 10 Nicæa, p 30 nearly straight b4 Hind wing with the inner margin very short and rounded 12 CAMPTOLOMA, p 31 b2 Hind wing with veirs 3 and 4 stalked 11 LEUCOPARDUS, p 31 b' Fore wing with vein 11 almost or quite touching 10 a2 Hind wing with veins 6 and 7 from 13 MOOREA, p 32 b2 Hind wing with veins 6 and 7 stalked 14 Calpenia, p 33 b Fore wing with vein 9 arising from 10 and anastomosing with 8 to form an areole 15 Callimorpha, p 34. c Fore wing with vein 10 arising from the a' Fore wing broad and ample 16 Axiopæna, p 37 b' Fore wing narrow 17 PELOCHYTA, p 38

Genus SPILOSOMA

Spilosoma, Steph Ill Brit Ent, Haust n, p 74 (1829) Alpenus, Wll. Cat 111, p 686 (1855)
Spilarctia, Butl Cist Ent 11, p 39 (1875)
Challa, Moore, P Z S 1879, p 398

Type, S lubricipedum, Linn, from Europe

Range Nearctic, Palmarctic, and Oriental regions

Palpi short, porrect, and fringed with hair Antennæ bipectinate in male, serrate in female Mid tibiæ with a terminal pair of minute spurs, hind tibiæ with two pairs Fore wing rather long and narrow, veins 3, 4, 5 from angle of cell, 6 from upper angle, Hind wing with veins 3, 4, 5 from angle of 7, 8, 9, 10 stalked cell, 6 and 7 from upper angle, 8 from middle of cell Female with an abdominal tuft sometimes developed

A Abdomen yellow in both sexes

1159 Spilosoma multiguttatum, Wik Cat 111, p 657, Butl Ill Het vii, pl 138, fig 9 (larva), C & S no 825

Deiopeia spilosomodes, Wik Cat xxxx, p 263, Butl Ill Het v, pl 85, fig 7, C & S no 826 Deropera pardalma, Wlk Cat xxx1, p 263, C & S no 747

d. Head and thorax yellowish white, the collar, tegulæ, and thorax spotted with black, abdomen yellow, with dorsal and lateral series of black spots Fore wing white, with numerous black spots forming eight ill-defined series. Hind wing yellow, with an obsolescent series of submarginal black spots, some specimens with some apical spots

2 The spots of the thorax and fore wing larger, hind wing with an anteniedial maculate band showing through from the underside, a large spot at end of cell, some very irregularly placed spots on the postmedial area and also on the outer margin

below the apex, a bifid spot at anal angle

Larva pale green blotched and streaked with white, with sparse black and white hairs, a dorsal series of tufts of brown hair on a broad band of black specks

Hab Kulu, Nepal, Sikhim Evp, 3 40, 2 60 millim

1160 Spilosoma sangaicum, W7k Cat xxxi, p 294, C & S no 750 A

Head and thorax pure white, abdomen with the basal and terminal segments white, the medial segments orange-yellow, with dorsal, lateral, and ventral series of black spots. Wings pure white, fore wing sparsely spotted with black or quite unmarked Femora of tore legs yellow

Hab Japan, China, Murree Exp, & 38, 9 46 millim

- 1161 Spilosoma subfascia, Will Cat 111, p 678, Moore, Lep Ceyl 11, pl 107, figs 3, 3 a, C & S no 846
- d Head and thorax pale buff, palpi black, tegulæ each with a black spot, abdomen orange, with dorsal and lateral series of black spots. Legs black, fringed with pale hairs. Fore wing pale buff, with a black spot at base, three on costa, one in cell, and a speck at its upper angle, an oblique series of spots from the apex to middle of inner margin, two spots on the outer margin below the apex. Hind wing paler, the inner area clothed with orange scales, some conjoined black spots towards anal angle and some at apex.

Q with the oblique band of spots of the fore wing almost absent and also those on outer margin below the apex. Hind wing without orange hairs on the inner area all the spots obsolete except two near anal angle. Abdomen with a large

ochieous anal tuft

Hab Ceylon Evp, of 44, ♀ 60 millim

1162 Spilosoma dalhergiæ, Moore, P Z S 1888, p 394, Butl Ill Het vii, p 28, pl 122, fig 2, C & S no 830 A

Differs from subfascia in the coxa and femur of each fore leg being crimson, tegulæ without black spots, thorax with a black stripe on vertex. Fore wing fleshy buff, without the black spots on the costa and in the cell, the oblique band consisting of paired specks on each side of the veins from the lower angle of cell to inner margin, a submarginal series of specks on each side of the veins from apex to vein 3. Hind wing pale, with a black spot at end of cell and one submarginal spot towards apex and four towards anal angle.

Hub Kángra, Sikhim, Khasis, Nagas Eip 48-52 millim

1163 Spilosoma punctatum, Moore, Cat E I Co p 355, C & S no 758
Spilarctia uniformis, Moore, Lep Ath p 39, C & S no 849

Differs from subfascia in not having the black spots on the tegulæ, underside of fore wing with the oblique band forking towards the costa in specimens which have the markings well developed

Hab Sikhim, Nágas, Burma, Java Erp, & 32, 9 48

mıllım

- 1164 Spilosoma dentilinea, Moore, P Z S 1872, p 573, C & S
 no 831
- d Differs from punctatum in having a short black streak on vertex of thorax Femora crimson Fore wing white, with a black speck at base, an intemedial angulated series of spots, two at end of cell, a curved postmedial series, a submarginal series

forming dentate marks towards costa and not reaching outer angle Hind wing slightly suffused with crimson, a black spot at end of cell and slight submarginal specks

Hab Sikhim Eap 42 millim

1165 Spilosoma stigmata, Moore, P Z S 1865, p 809, C & S

o Differs from dalbergrae in having the fore femora orange, the frons black, the dorsal spots of abdomen often almost obsolete. Fore wing yellowish buff, a subbasal series of spots, the one in the cell elongate (this series may, however, be almost obsolete),

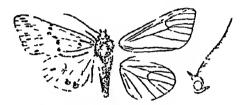


Fig 2 - Spilosoma stigmata, & }

a medial series of single spots angled at lower extremity of cell; the submarginal double specks more prominent. Hind wing without the spot at end of cell. The abdomen is sometimes more or less tinged with crimson above

Hab Sikhim, Nágas Erp 42-46 millim

1166 Spilosoma mona, Swinh P Z S 1885, p 295, pl 20, figs 3, 4, C & S no 757

Q Differs from dalbergue in having the coxe and femora of each pair of legs striped with crimson, vertex of thorax without the dark stripe. Fore wing with a spot at base, antemedial and postmedial maculate bands, the latter excurved beyond the end of cell, a submarginal series of specks on each side of the veins from costa to vein 3. Hind wing with a spot at end of cell, a postmedial band of small spots and submarginal series of large ones. Underside strongly marked with black showing through to the upperside. The spots on fore and hind wing may be much reduced, whilst one specimen has the whole cell of the hind wing filled in with black.

Hab Mahableshwar Erp 48-52 millim

1167 Spilosoma gopara, Moore, Cat L I Co p 356, pl 9 a, fig 11, C & S no 835

P Head and thorax buff without markings, abdomen orange, with dorsal and lateral series of black spots. Fore wing buff, with a black spot at base, the antemedial series represented by a spot

on costa and two above inner margin, a spot at upper angle of cell, a postmedial series of specks on each side of the veins, obsolete beyond the end of cell, a submarginal series of double specks. Hind wing orange-yellow, the cell and inner area more or less suffused with black, a submarginal series of spots, those towards anal angle largest

Hab Sikhim Exp 58 millim

1168 Spilosoma ummera, Swinh P Z S 1889, p 405, pl 43, fig 1

Q Bright buff, thorax with a black spot just behind the collar, abdomen pale orange, with dorsal and lateral series of small black spots. Fore wing with a spot at base, traces of submarginal specks on each side of the veins. Hind wing yellow, with a spot at end of cell and two towards and angle.

Hab Bassein, Burma Eap 40 millim

- 1169 Spilosoma bimaculatum, Moore, P Z S 1879, p 398, C & S no 854
 Challa quadrimaculata, Moore, P Z S 1888, p 395, Butl Ill
 Het vii pl 122, fig 9, C & S no 855 A
- 6 Head, thorax, and abdomen bright ochreous, the last with indistinct black lateral specks. Wings bright ochreous, for wing with a black spot at upper angle of cell, hind wing in the form quadrimaculatum with a fuscous spot at upper angle of cell. Hab Palampur, Punjab. Exp. 30-36 millim

1170 Spilosoma jucundum, Butl Ill Het v, p 32, pl 85, fig 11, C & S no 838

d Head and thorax pale buff, abdomen ochreous, white at base and extremity, a lateral series of black spots. Fore wing pale buff, a series of black specks from the costa beyond the middle, joined at vein 5 by a series of paired streaks from the apex on each side of the veins and thence continued as a band to centre of inner margin. Hind wing white

Hab Sikhim Exp 44 millim

1171 Spilosoma flavale, Moore, P Z S 1865, p 809, C & S no 834

Head, thorax, and abdomen bright orange, the last with dorsal and lateral series of spots (in some specimens the dorsal series is wanting). Fore wing bright orange, in some specimens unmarked, others with a complete series of grey spots from the apex to centre of inner margin, and an incomplete series outside them, or any intermediate stage may exist. Hind wing white, with a dark speck at end of cell and a more or less incomplete submarginal series of spots.

Hab Sikhim Exp 42 millim

B Abdomen of male crimson, of female orange

1172 Spilosoma todarum, Moore, P Z S 1872, p 574, C & S no 848

d Head and thorax brownish buff or brown, palpi and antennæ black, the latter with the shaft tipped with white, abdomen clothed with pale crimson hair, dorsal and lateral series of small black spots. Fore wing brownish buff or brown, a black spot at base, the antemedial series represented by a spot on the costa and speck above vein 1, a speck at upper angle of cell, a postmedial slightly curved fuscous band with a more or less complete series of double specks on each side of the veins, a similar submarginal series from the costa to vein 3. Hind wing yellowish or brownish buff, the inner area clothed with crimson hair, a black spot at upper angle of cell. Fore and hind femora crimson

Q Head, thorax, and fore wing whitish buff, the last with the markings mostly obsolete, abdomen orange, the anal tuft pale Hind wing yellowish white, without crimson hairs on inner area. Some specimens have a prominent black maculate submarginal band on underside of both wings, showing through on the upper-

sıde

Hab Nilgiri plateau Eip, 3 50, 2 60 millim.

C Abdomen crimson in both seaes

a Male with branches of antennæ long

1173 Spilosoma montanum, Guér Voy Deless p 92, pl 26, fig 3, C & S no 783
Spilosoma suffusa, Wik Cat m, p 677, C & S no 847

Differs from todaium in the palpi having the basal joint crimson, the shaft of antennæ not tipped with white, thorax with a blackish stripe ou vertex abdomen with the dorsal and lateral series of spots prominent. Fore wing yellowish brown, in one specimen suffused with crimson, the antemedial series only represented by a spot above vein 2, the postmedial band much more excurved, the spots composing it often conjoined, an indistinct maculate band between it and the submarginal band. Hind wing crimson or buff, a more or less complete submarginal series of spots, and spot at end of cell

2 Browner, with the black markings of both wings more prominent

Hab Punjab, Nilgiri plateau Erp, & 46, Q 54 millim

1174 Spilosoma strigatulum, Will Cat in, p 613, Moore, Lep E I Co pl 16, fig 11 (laiva)
Spilosoma rubescens, Will Cat in p 677, C & S no 759

Antennæ almost white, head and thorax ochreous, palpi black, femora crimson, abdomen crimson, with dorsal and lateral series

of black spots Fore wing brownish or reddish ochreous, with a basal black speck, an antemedial series of specks, postmedial and submarginal series of double specks, a marginal series Hind wing crimson, with a spot at end of cell and a submarginal series of spots which often coalesce into a complete band

In the female the markings of the fore wing may be totally

obsolete

Larva back, with tufts of pale ferruginous hair, the lateral

tufts long

Hab Moulmein, Penang, Java, Borneo Erp, ♂ 42, ♀ 52 millim

b Male with branches of antennæ short

1175 Spilosoma castaneum, *Hmpsn Ill Het* 1x, p 79, pl 158, figs 26, 27

d Head and thorax brown, the basal joint of palpi, the femora, and the pectus crimson. Abdomen crimson above and below, the dorsal and lateral series of spots small. Fore wing brown, with the basal spot, the antemedial series, the spot at end of cell, and those on costa above it well developed, the postmedial series taking the torm of large, extremely irregular blotches, cilia black llind wing uniform black

Q Head and fore wing red-brown, the last with a black spot at base a pair of antemedial spots on each side of vein 1, a postmedial curved series from vein 4 to inner margin, cilia redbrown Hind wing crimson, with a black spot at end of cell and

submarginal series of large spots

Hab Ceylon Eup, & 40, Q 50 millim

1176 Spilosoma rubilinea, Moore, P. Z S 1865, p 810, C & S no 812

Spilosoma discinigra, Moore, P Z S 1865, p 810, C & S no 832

Differs from montanum in the thorax having a black spot on vertex. Fore wing yellowish brown, with the black spots obsolite, the bands indistinct and with a crimson tinge the antemedial band highly angulate, the postmedial band not so much excurved Hind wing yellowish brown, the inner area slightly tinged with crimson, a black spot at end of cell and postmedial curved black band

In the form discinigra the base of the hind wing is suffused with black, one specimen has the wings wholly suffused with fuscous Hab Sikhim, Shillong, Burma Eip, 3 50, 2 56 millim

1177 Spilosoma erythiophleps, n sp

d Head, thorax, and abdomen reddish orange, palpi and from black, collar and tegulæ with paried black spots, abdomen with dorsal black bands and patch on terminal segment. Fore wing

orange, the veins scarlet, numerous black spots in the interspaces, a black streak from base through the cell to near outer margin Hind wing pale ochreous, medial and postmedial maculate black bands conjoined into a large patch in cell, a marginal series of spots with one inside it on vein 5

Hab Nága Hills, 6000 feet (Doherty) Erp 52 millim

- *1178 Spilosoma brunneum, Moore, P Z S 1872, p 574, C & S no 828
- Q Head and thorax pale reddish brown, abdomen crimson, with dorsal and lateral series of spots. Fore wing pale ied-brown, with a black speck at base below the costa, an antemedial series of spots, a spot at end of cell, a postmedial band angled beyond end of cell, a submarginal series of spots double in places. Hind wing uniform pale ied-brown

Hab Bombay Exp 48 millim

1179 Spilosoma casignetum, Koll Hug Kasch iv, p 469, C & S no 829

Spiloretia confusa, Bull Cist Ent ii, p 42, id Ill Het v pl 85, fig 13 C & S no 830

Spiloretia howqua, Bull Ill Het vii, p 28, pl 122, fig 3

Spiloretia nicha Bull Cist Ent ii, p 41, id Ill Het v, p 32, pl 85, fig 12, C & S no 840

Spiloretia sagittifera, Moore, P Z S 1888, p 394, C & S no 843 a Spiloretia howra, Moore, Lep Ath p 40, C & S no 836

Spilosoma sangunalis, Moore, P Z S 1865, p 810, C & S no 760

Head, thorax, and fore wing ochreous, the dorsal spots on abdomen often obsolete. Fore wing ochreous with an antemedial series of specks any or all of which may be absent, postmedial and submarginal series of double specks on each side of the veins, but often almost obsolete, the postmedial series curved. Hind wing ochreous, often more or less suffused with crimson, a spot at end of cell and submarginal series of spots, which are often absent except those towards and angle

The form confusum is whitish or pinkish ochreous, with the inukings slightly developed, in a temale from Sikhim which apparently belongs to this form the abdomen is orange. Howqua has the postmedial spot of the fore wing and submarginal series of hind wing prominent. A male from Dalhousie has the head and thorax black.

Hab Himalayas, from Kingra to Sikhim, Assam, Nigas Manipur, Calcutta, Bombay, Nilgiris, Burma Eup 40-46 millim

- 1180 Spilosoma bifasciatum, Hmpsn Ill Het vin, p 55, pl 140, fig 21
 - d Head and thorax dirty white, abdomen with the dorsal and

lateral spots prominent Fore wing dirty white, with the spots at base and end of cell and the ante- and postmedial series prominent, the last slightly curved, the submarginal series obsolescent. Hind wing wholly suffused with crimson, the spot at end of cell large, traces of some submarginal spots. Underside with the basal area and cell of fore wing suffused with black and with two postmedial bands.

Hab Nilgiris Eap 46 millim.

- 1181 Spilosoma comma, Wll. Cat vii, p 1703, C & S no 814 Spilosoma abdominalis, Moore, Cat E I Co p 356, Butl Ill Het v, pl 85, fig 9, C & S no 827
- d Head and thorax yellowish white, palpi crimson, the terminal joint black, pectus with a crimson tinge, a black mark on shoulders, temora crimson, abdomen with the dorsal and lateral spots prominent. Wings yellowish white, fore wing with black ante- and postmedial spots on the costa, an elongate black streak on centre of inner margin sending spurs into the interno-median interspace from each of its extremities.
- P Fore wing without the postmedial spot on the costa, hind wing with a spot at end of cell

Hab NW Himalayas Eip, 5 50, \$ 58 millim

- 1182 Spilosoma lacteatum, Butl Ill Het v, p 31, pl 85, fig 10, and vii, pl 138, fig 2 (larva), C & S no 839
- Head and thorax pale ochreous, palpi, frons, and pectus black, fore femora crimson, thorax with a black streak on the vertex. Fore wing pale ochreous, a black subbasal spot below the median nervure, a curved band of small spots from the apex to centre of inner margin, the spots on inner margin and between veins 2 and 3 taking the form of long streaks, submarginal double specks from veins 3 to 5. Hind wing white, with a black submarginal spot towards apex and three towards anal angle.

Q with the abdominal segments fringed with white and a large

anal white tuft

Larva black, with segmental tufts of black and dirty white hairs, the head and a dorsal tuft of hair on anal segment red-brown Hab Dharmsála, Sikhim Eap, 352, 260 millim

1183 Spilosoma melanopsis, Will Cat xxxi, p 280, Moore, Lep Ceyl n, pl 108, fig 2, C & S no 811 Aloa callisoma, Feld Reis Nov pl 101, fig 4

Head and thorax ochreous, frons black, palpi crimson, black above paired black spots on the shoulders and tegulæ Abdomen crimson above, whitish below, with a dorsal and two paired lateral series of black spots, thorax below and femoia crimson Hore wing ochreous, a fuscous oblique band from the costa beyond the

middle to centre of inner margin. Hind wing ochreous, the inner area suffused with crimson. Cilia of both wings white Hab Ceylon. Exp, d 56, Q 78 millim

1184 Spilosoma rubitinctum, *Moore, P Z S* 1865, p 809, *C & S* no 843

Icambosida punctilinea, Moore, Lep Atk p 40, C & S no 863

Head and thorax pale orange, palpi black fringed with crimson, antennæ with the shaft whitish, some crimson on pectus, abdomen crimson, the dorsal and lateral spots small. Fore wing crimson, shading off to orange outwardly, an oblique band from vein 5 to centre of inner margin. Hind wing white, a black spot at end of cell and a submarginal series of two subapical spots and three towards anal angle.

The form punctilinea is very pale

Hab Sikhim Exp, 3 44, 2 56 millim

1185 Spilosoma erythrozona, Koll Hug Kasch iv, p 468, C & S no 833 Spilosoma cognata, Wik Char Undesci Het p 11 (1869)

Head and thorax white, abdomen crimson above with black bands, white below, with two series of black spots. Wings white, some specimens with traces of a spot at end of cell and submarginal spots to both wings.

Hab NW Himalayas, Kashmir Exp, of 40, 2 46 millim

D Abdomen brown, antennæ serrate in male

1186 Spilosoma fuscipenne, n sp

d Head, thorax, and abdomen pale reddish brown, abdomen with black dorsal and lateral specks. Fore wing dark fuscous brown, with indistinct ante- and postmedial black lines, the latter slightly angled at lower end of cell. Hind wing pale fuscous, Femora of fore and hind legs crimson on the cutside.

Hab Simla (Harford) Eap 48 millim Type in B M.

Genus THYRGORINA

Thyrgorina, Wll. Cat XXXI, p 317 (1864) Echlida, Wll. Cat XXXII, p 386 (1865) Icambosida, Wll. Cat XXXII, p 400 Andala, Wll. Cat III, p 774 (1855), præoce Carbisa, Moore, Lep Ath p 41 (1879)

Type, T indica, Guen

Range Himalayas, Bombay, Nilgiris, Burma

Palpi short, porrect, and hairy Antennæ of male with the branches longer than in typical Spilosoma, thorax and abdomen of slighter build, mid tibiæ with one pair of spurs, hind tibiæ

with two pairs Wings sparsely covered with hair-like scales and slightly diaphanous, the venation as in Spilosoma, fore wing rather long and narrow Female with an abdominal tuft

A Abdomen yellow above

Thyrgorina indica, Guér Voy Deless p 93, C & S no 837
Thyrgorina spilosomata, Wlk Cat xxxii, p 318, C & S no 770
Echlida subjecta, Wlk Cat xxxii, p 387, C & S no 1070

Head and thorax white, palpi black, frons and shoulders pale



Fig 3
Thyrgorina indica, 3. \frac{1}{2}

yellow, abdomen yellow, with dorsal and lateral series of black spots. Wings white, in some specimens with a creamy tinge. Fore wing with the basal half of costa black, traces of a subbasal series of spots, a medial curved series and postmedial series angled outwards at lower end of cell, a submarginal series. Hind wing with a spot at end of cell and submarginal series of black spots,

those towards anal angle large

Some specimens have entirely lost the markings on the wings, all the intergrades between them and the well-marked forms being found

Hab Bombay, Nilgiris Exp, & 32, Q 42 millim

1188 Thyrgorina multivittata, *Moore, P Z S* 1865, p 808, *C & S* no 768

Differs from indica in the first band of the fore wing being antemedial and much more angled, the postmedial band also much more angled and joined by an oblique series of spots from the apex, the submarginal series confined to the area between veins 3 and 5

As in indica, the markings on the wings may be entirely obsolete. In the well-marked males the shoulders are reddish orange and black, the pectus and irons black, whilst in the pale forms the whole shoulder and pectus are yellow, and the palpitringed with yellow, the frons white. In the female there is no yellow on shoulders or pectus.

Hab Murree, Punjab, Sikhim, Nágas, Burma Eip, & 36,

Q 42 millim

- 1189 Thyrgorina nigrifrons, Will Cat xxxii, p 401, Butl Ill Het v, pl 85, fig 3, C & S no 862
- To Differs from multivittata in the head, thorax, and abdomen being clothed with longer hair, palpi, frons, fore legs, and abdomen below black, collar orange-yellow, abdomen yellow above, the basal and terminal segments white, wings unmarked
 - Q Frons white, a large pale anal tuft Hab Sikhim Erp, & 38, Q 48 millim

- 1190 Thyrgorina unifascia, Wll. Cat 111, p 774, Butl Ill Het vii, pl 138, fig 11 (laiva), C & S no 772
 Alphæa varia, Wll. Cat xxxi, p 297, C & S no 861
- d Head and thorax white, palpi black, collar and tegulæ with small black spots, abdomen yellow, with short dorsal bands, a large patch on terminal segment, and lateral series of spots. Fore wing white, with three black spots near the base, an antemedial series of spots, a medial angulated broad black band with irregular edges, indistinct postmedial, submarginal, and marginal series of spots, those on the costa large. Hind wing with a spot at end of cell and a submarginal series

The abdomen and hand wing smoky white in some specimens Larva black, with tufts of white hair, dorsal and paired subdorsal series of segmental white spots

Hab Mussooree, Kangra Eip, & 39, 2 50 millim

- 1191 Thyrgorina discalis, Moore, P Z S 1879, p 399, pl 32, fig 7, C & S no 855
- of Ochreous, abdomen orange, with dorsal and lateral series of black spots. Fore wing with a black spot at end of cell and traces of fuscous spots forming antemedial and medial bands. Hind wing with an indistinct spot at end of cell.

 Hab. N.W. Himalayas. Exp. 30 millim

1192 Thyrgorina obliquivitta, Moore, Lep Ath p 40, pl 2, fig 26, C & S no 841

Head and thorax pale ochreous, abdomen orange, with lateral series of black spots. Fore wing pale ochreous, with an oblique series of black conjoined spots from apex to centre of inner margin. Hind wing white

Hab Sikhim, Manipur Eip, & 36, 2 54 millim

- 1193 Thyrgorina venosa, Mone, Lep Ath p 41, pl 11, hg 10, C & S no 864
- d Head, thorax, and abdomen ochieous, the last with narrow dorsal black bands or spots. Fore wing blownish ochreous, the veins whitish, cilia ochieous. Hind wing pale ochieous, with a very indistinct submarginal band.

Another specimen has the ground-colour of the wings smoky black, the veins and cilia of tore wing yellow. Another torm has the wings wholly black, with a yellow spot on the costa above the end of cell of tore wing.

end of cell of fore wing

Hab Sikhim Eip 36 millim

1194 Thyrgorina flavens, Moore, Lep Ath p 39, C & S no 824

Ochreous, abdomen orange, with dorsal and lateral series of black spots. Fore wing with a wide black medial band of six

spots, the two spots in the cell long and extending to just beyond it, a postmedial band of nine spots excurved round the end of cell, two submarginal spots between veins 4 and 6 Hind wing with a spot at end of cell, a maculate band beyond the cell from the costa to vein 3, a submarginal maculate band interrupted between veins 3 and 4

Some specimens lose the submarginal spots of fore wing and all the markings of hind wing except the spots near anal angle

Hab Sikhim, Khásis. Evp 42 millim

B Abdomen crimson or fiery red above.

- 1195 Thyrgorina biseriata, Moore, P Z S 1877, p 596, C & S
- Q Head and thorax reddish ochreous, collar fringed with crimson, abdomen crimson, with series of black dorsal and lateral spots. Fore wing reddish ochreous, two black spots at base, a medial band of six spots, two spots at end of cell, a postmedial band of nine spots excurved round end of cell. Hind wing dull crimson, a black spot at end of cell, one near base of inner margin and one at anal angle

Hab S Andaman Island. Exp 38 millim

- 1196 Thyrgorina sordida, *Moore, P Z S* 1865, p 808, *C & S.* no 844
- d Head and thorax pale reddish brown, abdomen crimson, with slight dorsal and lateral series of black spots. Wings pale red-brown fore wing with traces of antemedial and postmedial curved lines and a mark on discocellulars, hind wing with spots at end of cell and some submarginal spots.

Hab Sikhim Eap 36 millim

- 1197 Thyrgorina sikkimensis, Moore, Lep Ath p 39, pl 2, fig 12, C & S no 809
- Q Head and thorax pale ochreous brown, abdomen pale crimson, with dorsal and lateral series of black spots, the first segment brown, the terminal segments and anal tuft ochreous Fore wing ochreous brown, the veins paler, with traces of a medial oblique band Hind wing fuscous, with an indistinct pale submarginal band

This may be the female of T sordida

Hab Sikhim Exp 46 millim

- 1198 Thyrgorina eximia, Swinh Trans Ent Soc 1891, p 137, pl vin, fig 8
- of Orange-red, thorax spotted with black Fore wing with a black spot at base, a curved subbasal band, a broad V-shaped

medial band and submarginal series of spots Hind wing with a spot at end of cell and a submarginal series of spots, those towards anal angle largest, the middle spot minute

Hab Canara Exp 30 millim

1199 Thyrgorina rhodophila, Will Cat xxxi, p 294, Butl Ill Het v, pl 85, fig 4, C & S no 769
Spilosoma rubidorsa, Moore, P Z S 1865, p 808
Itambosida dorsalis, Moore, P Z S 1888, p 394, C & S no 861 A

3 Differs from multivittata in the shoulder and pectus being crimson, palpi fringed with crimson, abdomen bright crimson. Wings pure white Fore wing with only the oblique maculate band from the apex to inner margin and the submarginal spots between veins 3 and 5 Hind wing with the spot at end of cell and submarginal series obsolescent

Q The basal and terminal segments of abdomen pure white, the medial crimson segments with a prominent dorsal series of

black spots

Larva Head red-brown, dorsal area dark brown, with a series of white streaks on the vertex, lateral area pale brown, with pale streaks and tufts of long hair arising from yellow papillæ

Hab NW Himalayas, Sikhim, Nagas, Manipur Exp 42

mıllım

C Abdomen black.

1200 Thyrgorina melanosoma, n sp

Differs from *indica* in the abdomen being black ringed with white, the basal segment clothed with white hair, the others slightly fringed with white, anal tuft ochreous. Wings with hardly a trace of markings

Hab Kulu (G Young), Sikhim (Moller), Khásis (Elwes)

Exp 46 millim Type in coll Elwes.

Genus ARCTIA.

Arctia, Schrank, Fauna Boica, 11, p 152 (1802) Euprepia, Ochs Eur Schmett 111, p 299 (1810) Alope, Wik Cat 111, p 619 (1855) Gonerda, Moore, P Z S 1879, p 395

Type, A villica, Linn, from Europe

Range N America, Palæarctic region, Himalayas, through-

out India and Ceylon, Assam

Palpi porrect, reaching beyond the frons, the first two joints fringed with hair Antennæ bipectinated in male, the branches short, swollen at extremity, and with a terminal bristle, serrate in temale Legs hairy, hind tibiæ with two pairs of spurs Fore wing rather short and broad Venation as in Spilosoma

- 1201. Arctia suttadra, Moore, P Z S 1879, p 395, C & S no 753 Arctia cajula, Staud Ent Mo Mag xxii, p 258
- d Head and thorax pale red-brown, slightly marked with scarlet and white, abdomen crimson, with short dorsal black bands and lateral spots. Fore wing red-brown, two white spots

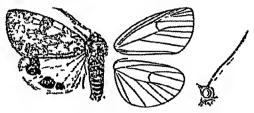


Fig 4 -Arctia suttadra, 6 }

on basal part of costa and two in interno-median interspace, the basal mark large and with a brown spot on it, a white bar from the costa to lower angle of cell, a postmedial band from costa to outer angle, two subapical specks. Hind wing scallet, two antemedial black spots, one at end of cell, a submarginal series of conjoined black blotches, black streaks at apex and middle of outer margin.

The markings of the fore wing may be well developed or much

reduced

Q with white streaks on thorax A variety has the hind wing yellow Hab N W Himalayas Exp, 3 44, 2 48 millim

1202 Arctia orientalis, Moore, A M N H (5) 1, 1878, p 230, C & S no 751

domen scarlet, with short dotsal black bands. Fore wing rutous, the basal area white, sending a spur outwards in the interno-median interspace, and with rufous spots on the costa and inner margin, short white bands from the costa to median nervure at middle and towards end of cell, a postmedial band conjoined at middle to a doubly-angled submarginal band. Hind wing scarlet, a large black spot on median nervure at middle of cell, with a small spot below it on vein 1, three submarginal spots, all these with deep blue centres, chia yellowish white. Underside with a broad black medial band to both wings

Closely allied to A caja, Lann

Hab NW Himalayas, Khásis, Sibságar Evp 66 millim

- 1203 Arctia perornata, Moore, P Z S 1879, p 395, pl 32, fig 2, C & S no 755
 - d Head and thorax ochieous, head black at sides and below,

thorax with three black-brown stripes, abdomen crimson, with some brown on the vertex of basal segments, lateral crimson tufts and anal dark tuft with two small crimson tufts, femora striped with crimson. Fore wing ochreous, some short black basal streaks, antemedial, medial, postmedial, and submarginal angulated black bands, a patch on discocellulars and marginal band. Hind wing crimson, a broad antemedial black band, a large patch at end of cell, with a narrow curved band from it to inner margin, a submarginal band broken towards anal angle, a marginal line Chia of both wings ochreous

2 Some specimens have the abdomen crimson, with black spots on vertex and lateral bands, the bands of both wings much reduced in width, those of the fore wing highly angulated, the

marginal line of hind wing absent

In others the head and abdomen are black, the latter ringed with crimson, fore wing with the bands very broad, the antemedial and medial bands conjoined, hind wing with the basal area black, the bands broad, the marginal line present

Hab Kashmir Erp 41-48 millim

*1204. Arctia? tibetica, Feld Reis Nov pl 101, fig 12, C & S
no 754

Head and thorax red-brown, collar crimson, abdomen dark red-brown, with the sides crimson and extremity otherous. Fore wing red-brown, the basal area darkest, a yellow streak from the base below median nervure. Hind wing crimson, the basal and costal areas black, a streak along base of inner margin, black streaks along veins 1 and 2 to the submarginal series of blotches, a spot at centre of cell and another at middle of outer margin.

Hab Ladák Eap 28 millim

- *1205 Arctia? parvula, Fetd Reis Nov pl 100, fig 24, C & S no 752
- Head crimson, thorax and abdomen pale brown, the latter with white segmental rings. Fore wing pale brown, with a black mark at base extending along inner margin to middle, basal two-thirds of costa pink, a black spot at end of cell, an obsolescent curved postmedial band. Hind wing crimson, the base black, a fascia extending from it to a submarginal band with waved edges, a black spot at end of cell. Cilia of both wings pink

Hab "Himalayas" Exp 28 millim

1206 Arctia ricini, Fabr Syst Ent p 583, Moore, Lep Ceyl II, pl 106, figs 2, 2 a, b (larva), C & S no 780
Phalæna zerah, Cram Pap Liot IV, pl 397, fig G
Alope ocellifera, W7k Cat III, p 620
Alope clavatus, Swinh P Z S 1885, p 295, C & S no 778

Head and thorax dark grey-brown, collar fringed with crimson vol 11

and with a pair of pale-ringed black spots, tegulæ with two pairs and vertex of thorax with one similar spot, abdomen crimson, with a series of short dorsal black bands and lateral spots fuscous brown, with very numerous pale-ringed black spots in the Hind wing crimson, with antemedial, medial, postinterspaces medial, and marginal bands and more or less conjoined blotches

The variety clavatus has the hind wing orange, whilst in zerah it

is vellow

Larva dark brown speckled with white, and with dorsal and

ateral tufts of long dark hair

Hab Throughout India and Ceylon Exp, ♂ 33-50, ♀ 60-68 mıllım

1207 Arctia transversa, Moore, P Z S 1879, p 398, C & S

Pale brown, thorax spotted with black. Fore wing with two black spots below base of costs, an antemedial angulated series of spots, a medial angulated band broken at middle, a postmedial maculate band, a submarginal series, the spots from veins 2 to 6 almost obsolete, a marginal series Hind wing pale brown, with a spot at end of cell and submarginal series (Head and abdomen of type wanting)

Hab "NW India" Exp 38 millim

Genus OCNOGYNA

Ocnogyna, Rambur, Lép And p 255 (1858)

Type, O hemigena, Grasl, from Europe

Range Europe, Kashmir

Differs from Arctia in the head being clothed with long hair, the palpi extremely minute and buried in hair

Female with the wings aborted.

1208 Ocnogyna postflavida, n sp

Head, thorax, and abdomen black grazzled with white, ab-



Fig 5 Ocnogyna postflavida, &

domen fringed with yellow hair towards extremity Fore wing very dark red-brown, with an indistinct subbasal oblique whitish line joining a curved medial obsolescent band on vein 1, a postmedial curved band joined at middle to a dentate submarginal line Hind wing orange irrorated with dark scales, the inner area

blackish, a broad marginal black band interrupted by a streak

from the orange area to centre of margin, a black patch at end of cell Cilia yellow

Hab Skoro La, Kashmir (Leech) Exp 28 millim Type in

coll Leech

Genus PANGORA

Pangora, Moore, Lep Ath p 42 (1879)

Type, P distorta, Moore

Range NW Himalayas, Bombay and Malabar, Ceylon

Palpi not projecting beyond the frons Antennæ almost simple in both sexes Hind tibiæ with two pairs of spurs. Fore wing rather long and narrow Venation as in Spilosoma

- 1209 Pangora erosa, Wil Cat m, p 708, Moore, Lep Ceyl n, pl 107, figs 1, 1 a, b (larva), C & S no 776
- d Palpi crimson, with the third joint black, head white, with a black spot on vertex, collar and tegulæ white, with pairs of black spots, thorax brown, with white stripes near the tegulæ, abdomen crimson above, with a dorsal series of brown spots. Legs striped with crimson. Fore wing brown, with a highly irregular white fascia from the base, joining a nearly straight medial band sometimes interrupted above median nervure, and with a brown subbasal spot on it below inedian nervure, two subapical spots and one submarginal above vein 3. Hind wing crimson, with three large irregular submarginal brown blotches and some small spots on the margin below apex.

2 with the submarginal spots on fore wing small, hind wing with medial brown spots at origin of vein 2 and on vein 1, and

the submarginal spots conjoined into a broad band

Larva Dark brown, clothed with dense tufts of blackish hair Hab Nilgiris, S slopes, Ceylon Exp 60 millim

- 1210 Pangora distorta, Moore, Lep Ath p 42, pl 11, fig 14, C & S
- The Differs from erosa in the spots on the thorax being large, two spots taking the place of the stripe on vertex. Fore wing with the basal irregular patch separate from the medial band, which is very irregular, the subapical and submarginal spots large. Hind wing crimson, with a double black spot at upper angle of cell, a submarginal series of three patches decreasing in size towards anal angle.

Hab Mussooree, Simla Eip 64 millim

1211 Pangora rubelliana, Swinh P Z S 1889, p 403

3 Differs from eiosa in the fore wing having the subbasal white patch large, with two spots on it, and separated from the

medial band, which is broken up into two highly-irregular patches, the submarginal spots five in number

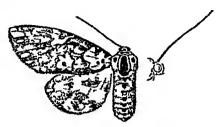


Fig 6-Pangora rubelliana, Q

♀ with a nearly complete medial band to hind wing Hab Canara, Nilgiris, W slopes Erp, 5 50, ♀ 58 millim.

1212 Pangora matherana, Moore, P Z S 1879, p 396, Waterh
Aid, n, pl 131, fig 6, C & S no 777

Q Differs from rubelliana in having all the crimson parts orange, the medial irregular patches of fore wing conjoined Hab Bombay, Matheran Eap 60 millim

Genus ALPHÆA

Alphæa, Wil. Cat 111, p 683 (1855) Nyaca, Moore, Lep Ath p 43 (1879) Rajendra, Moore, Lep Ath p 43

Type, A fulvohuta, Wik

Range Throughout India, Ceylon, and Burma, Java

Palpi short and hairy, extending beyond the frons Hind tibies with two pairs of spurs Fore wing rather long and narrow. Venation as in Spilosoma

- SECT I Antennæ of male with short branches, of female serrate

A Abdomen of male clothed with long hair

1213 Alphæa fulvohirta, Wik Cat in, p 684, Butl Ill Het v, pl 85, fig 8, C & S no 859

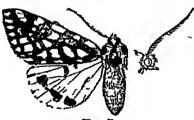


Fig 7 Alphæa fulvohirta, d

spots in the interspaces Hind

Palpi and from black, vertex of head white, collar white, striped with black and slightly fringed with yellow, thorax black, tegulæ white, striped with black Abdomen orange above, the underside white, banded and spotted with black Fore wing smoky black, the veins pale and with numerous white Hind wing white, with some black

ALPHÆA. 21

marks on the costa, a lunulate mark at end of cell; an irregular interrupted submarginal band, some small marks on the maigin near apex

Hab. Sikhim Exp 55 millim

1214 Alphæa florescens, Moore, Lep Ath p 43, pl u, fig 13, C & S no 858

d Differs from fulvoluria in the vertex of head being yellow, the collar fringed with red, abdomen crimson, feinoia red. Fore wing with the ground-colour olive-brown, the spots much fewer in number, those in the interno-median interspace being conjoined into a highly irregular streak, and the only other prominent spots being some on costa, one at end of cell, one beyond it, and conjoined submarginal and marginal series. Hind wing with the base black, the spot at end of cell and submarginal conjoined series large.

The vertex of head white, fringe to collar and femora

crimson, abdomen with a dorsal series of black spots

Hab Sikhim Exp, & 54, \times 66 millim

1215 Alphæa imbuta, Wik Cat in, p 614, Butl Ill Het v, pl 86, fig 1, C & S no 860

d Olive-brown, from and vertex of head pale buff, abdomen above and femora crimson. Fore wing with the veins yellow, a white patch at base, with a black spot on it, some irregular white marks in the interno-median interspace, some spots on costa and others on outer area. Hind wing black, with a yellow postmedial spot below vein 2 and some conjoined spots on outer area.

Q with a series of black dorsal spots on abdomen Hind wing with an irregular yellow postmedial band from vein 3 to anal angle.

and complete irregular marginal band

Hab Simla, Sikhim Exp, 3 44, ♀ 70 millim

B Abdomen of male clothed with short scales

1216 Alphæa quadriramosa, Koll Hugel's Kaschmir, iv, p 468, C & S no 822

Palpi black fringed with yellow, head and thorax white, collar with paired black spots and slightly fringed with yellow, thorax and tegulæ striped with black, abdomen orange, with dorsal segmental black bands and lateral and ventral spots. Femora orange Fore wing white, with broad black fasciæ along subcostal, median, and submedian nervures, the fascia on median nervure dividing up into streaks along veins 2, 3, 4, 5, and spots on veins 6 and 7. Hind wing white, with a black lunule at end of cell and a submarginal series of four spots.

The markings may be much reduced and the hind wing unmarked

Larva brownish black, slightly powdered with pale specks and with tufts of dark red hairs

Hab NW Himalayas, Khási and Nága Hills, ? Satara Exp, 3 40, ♀ 48 millim

- 1217 Alphæa tigrina, *Moore, P Z S* 1879, p. 398, pl 32, fig 4, C & S no 850
- d Differs from quadrnamosa in the branches of the antennæ being rather longer, colour orange-buff, tegulæ without the black stripe. Fore wing with the fasciæ along the subcostal nervure, median nervure and veins rising from it, and submedian nervure broader and more irregular, a submarginal series of black spots more or less joined to the median fascia. Hind wing with a black blotch at end of cell, a submarginal series, and some black marks on the inner aud discal areas.

In some specimens the black markings of fore and hind wing extend over the greater part of the surface

Hab Palni Hills Exp 46 millim

1218 Alphæa leopardina, Koll Hugel's Kaschmu, 1v, p 467, pl 21, fig 2, C & S no 802

Nyaca divisa, Wil Cat 111, p 614, Butl Ill Hel v, pl 86, fig 2, C & S no 857

Palpi and frons black, vertex of head white, tegulæ black, fringed with white, thorax white, with a broad black stripe on vertex, abdomen crimson above, the extremity yellow, and with dorsal and lateral series of black spots. Fore wing white, with conjoined black patches occupying most of the surface, a broad fascia along median nervure coalescing with some patches from the costa and an oblique postmedial band bifurcating towards the costa, some smaller submarginal marks and a series of patches along inner margin. All these markings are, however, sometimes reduced and separated. Hind wing black, with an irregular white postmedial band, sometimes only extending from the costa to lower angle of cell, some submarginal and marginal marks.

One specimen has the whole of the underside of the fore wing except the outer area, and also the inner area of the hind wing,

suffused with crimson, showing through to the upperside

Hab NW Himalayas and 7 Khasi Hills Erp, & 45, 9 56 millim

1219 Alphæa vittata, Moore, P Z S. 1879, p 396, pl 32, fig 12, C & S no 797

Head and thorax black, vertex of head with a white band, tegulæ white, with a black spot, abdomen crimson above, black below, with a series of short dorsal black bands, femora crimson Fore wing black, a white fascia from the base to the apex describing an almost even cuive. Hind wing crimson, with a black

ALPHÆA. 23

spot at end of cell and submarginal series of four spots, the two towards apex sometimes obsolete, cilia white

Hab Burma, Nilgiri plateau Exp 46 millim

1220 Alphwa biguttata, Will Cat 111, p 707, C & S no 789
Spilosoma lativitta, Moore, P Z S 1865, p 809, C & S no 792
Rajendra irregularis, Moore, Lep Ceyl 11, p 72, pl 107, fig 2,
C & S no 790

Differs from vittata in the white fascia of the fore wing being broader and elbowed at vein 2 Hind wing with the cilia black, in the variety irregularis white

Hab Sikhim, Pareshnáth, Canara, Nilgiris, W slopes, Ceylon

Erp 47 millim

1221. Alphæa nigricans, Moore, P Z S 1872, p 572, C & S no 793

d Head and thorax black, a white band on vertex of head, tegulæ white, with a black spot, abdomen crimson, with black dorsal and ventral bands. Fore wing uniform dark red-brown, with very faint traces of the curved fascia. Hind wing crimson, with a brown band on the costa extending into end of cell and the three submarginal spots.

Hab Deccan, Bombay, Matheran Eup 40 millim

1222 Alphæa dentata, Wlk Cat 111, p 708
Aloa khandalla, Moore, Cat E I Co p. 361, pi 9 a, fig 13,
C & S no 791

Differs from biguitata in being brownish black, the fascia of the fore wing more or less produced into the middle of cell and downwards at the elbow, whence it is bent upwards at a sharper angle and reaches the costa before the apex, a white patch on the outer margin below the apex and another at centre. Hind wing almost white in male, crimson in female, the cilia pale

Hab Bombay, Canara, Nilgiris Eup 52 millim

1223 Alphæa pannosa, Moore, P Z S 1879, p 397, pl 32, fig 8, Butl Ill Het vn, pl 138, fig 8 (larva), C. & S no 794

Differs from dentata in having two brown spots on the collar, the tegulæ striped brown and white, abdomen with dorsal dark spots. Fore wing with the fascia extremely irregular and reaching the outer margin below the apex, a black spot on it at base, some spots on the costa and three transversely placed before the apex, some specimens with two spots at end of cell and two towards outer angle, others have the markings of the fore wing much reduced. Hind wing crimson, with a speck at end of cell, a large spot near apex, and one or two towards anal angle.

Larva black, with tufts of pale hair, a dorsal yellowish band and two lateral white bands, head red-brown legs pale brown

Hab NW Himalayas Exp, 3 43, 9 50 millim

1224 Alphæa sipahi, Moore, P Z S 1872, p 573, C & S no 795

d Differs from pannesa in the white band of the fore wing being broken up into numerous spots. Hind wing with two dark blotches on the costa as well as the submargual marks

Hab Bombay, Mahableshwar, Madras Eap 34 milum

SECT II. Antennæ of male serrate, of female simple 1225. Alphæa obliquifascia, n sp

d Head and thorax black-brown, vertex of head and tegulæ pale vellow abdomen orange, with black dorsal bands and patch on last segment. Fore wing black-brown, with two white spots in the basal half of the interno-median interspace, a small spot at middle of cell. a postmedial oblique band of six spots from the apex and one to four spots on outer margin. Hind wing pale yellow sometimes almost white, a black spot at end of cell, one submarginal spot towards apex and two towards anal angle, the submarginal spots sometimes obsolete, cilia pale

2 with the markings of the hind wing usually much more

extensive than in the male and the cilia black

Hab Dharmsala, Assam, Burma, Java Erp, & 36, Q 40 millim Type in B M

1226 Alphæa tripartita, Wil Cat in, p 706, Bull Ill Het v, pl. 86, fig 4, C & S no 796

Q differs from obliquifascia in the band of six spots on the fore wing being curved instead of oblique and starting from the costa beyond the middle

Hab Moulmein Eip 42 millim

1227. Alphæa impleta, WW. Cat xxxi, p 286 C & S no 801 Alphæa abdominalis, Moore P Z S 1867, p 682 C & S no 856

Palpi and frons black, vertex of head white, antennæ black tipped with white, collar white, with two black patches, tegulæ white, each with a black spot, thorax white, with a broad black band on vertex abdomen orange, with a series of black dorsal spots and the extremity black, the ventral surface black, with four series of white spots, legs black, mid and hind femora with large white spots. Tore wing black, with numerous large creamywhite spots in the interspaces. Hind wing pale orange, with a black mark at centre of costa extending into the cell; postmedial and submarginal series of irregular black marks, the apex black

Mab. Sikhim E.p., & 54, 9 66 millim

Genus AREAS

Areas, Will Cat in, p 658 (1855) Melanareas, Butl Ill Het vn, p 29 (1889)

Type, A. galactina, Van der Hoev

AREAS 25

Range Himalayas, Assam Hills, Borneo, Java
Palpi porrect and long, the third joint naked Hind tibiæ with
two pairs of spurs Venation as in Spilosoma

SECT 1 Antennæ bipectinated in male, the branches short serrated in female

1228 Areas galactina, Van der Hoev Trydsch Nat Gesch 1840, p 280

Areas ottentalis, Wlh. Cat. 111, p. 658, C & S no 812 Neumenes trigonalis, Voll. Tyd. v. Ent. 1868, p. 140, pl. x. fig. 1

Head orange, from and third joint of palpi black, antennæ black tipped with white, thorax white above, crimson below, with paired black spots on collai and two pairs on tegulæ, a broad

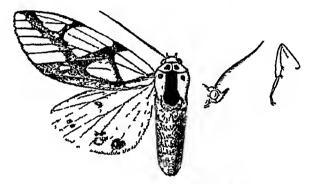


Fig 8 -Areas galactina, d 1

brown band on vertex, thorax crimson above, yellow below, with dorsal and lateral series of black spots; temora orange. Fore wing white, the veins brown, an outwardly oblique brown band met on vein 2 by an inwardly oblique band which forks towards the costa, inner area brown, sending divergent spurs upwards near the base. Hind wing yellow, a brown spot on costa, one at end of cell, two to four small submarginal spots, the two towards apex often absent.

Hab Himalayas, Khúsis, Nágas, Borneo, Java. Ειρ, 366, 290 millim

1229 Areas imperialis, Koll Hugel's Kaschmir, iv, p 466, pl 21 fig 1, C & S no 810

Antennæ black, white at tips, head black, the vertex white Thorax black, collar with white and crimson lateral stripes, tegulæ white, with a black spot, abdomen crimson, with black bands. Fore wing black; a white fascia above median nervure and vein 5, a streak from beyond upper angle of cell to costa before apex and from lower angle to outer margin above vein 2, a broad fascia from the base along vein 1; a series of marginal

26 ARCTID E

spots Hind wing yellow, with a black lumile at end of cell and four large submarginal patches, the two upper conjoined

Larva black, with tutts of long ferruginous hair, head ferru-

ginous, stigmata white

Hab NW Himalayas, Sikhim Erp, & 80, 2 94 millim

SECT II Antennæ of male simple

1230 Areas arginalis, n sp

Head crimson spotted with black, the third joint of palpi black. Thorax ochreous tinged with crimson, the collar, tegulæ, and vertex marked with black, abdomen crimson, with dorsal and lateral series of black spots. Fore wing smoky black, a white spot at base, three below costa, two in cell, four in interno-median interspace, and three on vein 1, a broad irregular maculate band from the costa beyond middle to outer margin above the angle, three submarginal spots. Hind wing crimson, three medial black spots, three submarginal blotches, the one near apex conjoined to some marks on the margin.

Hab Nága Hills, 3500 feet (Doherty) Exp. 103 millim Type

in coll Elwes

Genus CREATONOTUS

Creatonotos, Hubn Verz p 169 (1818) Rhodogastria, Hubn Verz p 172 Aloa, Wik Cat 111, p 699 (1855) Savara, Wik Cat xxx1, p 320 (1864) Bucæa, Wik Cat xxxv, p 1983 (1866)

Type, C interruptus, Linn

Range Throughout India, Ceylon, and Burma, China, Penang, Java

Palpi short and porrect Hind tibiæ with one pair of spurs Fore wing rather narrow Venation as in Spilosoma Fore wing in some specimens with vein 10 from cell, and vein 5 in both wings sometimes from above angle of cell

SECT I (Creatonotus) Antennæ minutely ciliated in both sexes

1231 Creatonotus interruptus, Gmel Syst Nat 1 v, p 2553, Moore,

Lep E I Co pl 17, figs 1, 1 a (larva), C & S no 787

Creatonotus continuatus, Moore, A M N H (4) 11, 1877, p 344,

id Lep Ceyl n, pl 108, figs 4, 5, 5 a, C & S no 786

Bombyx francisca, Fabr Mant Ins n, p 131

Head, thorax, and fore wing pale pinkish ochreous, palpi and legs smoky black, the femora yellow, a broad dorsal band on thorax, abdomen crimson above, with dorsal and lateral series of black spots. Fore wing with a broad black fascia below median nervure, two black spots at end of cell, and a broad streak beyond the lower angle. Hind wing pale or dark fuscous, some specimens with a submarginal series of black spots.

The variety continuatus has additional black streaks on the fore wing below the costa, in cell, above inner margin, and in the marginal interspaces, but all the intergrades occur

Larva black, sparsely clothed with long hairs, head marked with white, a yellow dorsal line with a series of orange spots on

it, prolegs pale

Hab Throughout India, Ceylon, and Burma Eip 42 millim

SECT II (Rhodogastria) Antennæ fasciculated in male A Abdomen crimson

1232 Creatonotus moorei, Butl Cist Ent 11, p 23, 1d Ill Het v, pl 85, fig 2, C & S no 820
Aloa sara, Swinh P Z S 1889, p 404

Antennæ black, with the basal joint scarlet Palpi scarlet at sides, white below, the terminal joint black, head white, with a crimson line behind it, thorax white, abdomen scarlet above, with a series of black dorsal spots, white below, with two series of black lateral spots. Wings white fore wing with a scarlet fascia along the costa, a black speck at each angle of cell, some specimens with some spots between the lower angle of cell and inner margin and a subbasal spot on vein 2. Hind wing with a black spot at end of cell and a submarginal series of four, the two towards anal angle sometimes absent

The form sara has the black spots prominent and a pair on the

tegulæ

Hab Almora, Karáchi, Bombay Eip, 5 58, 2 44 millim

- 1233 Creatonotus collaris, Hmpsn Ill Het viii, p 54, pl 140 fig 18
- o Differs from moorer in having the scarlet band at back of head broader, the collar fringed with scarlet, the costal fascia of fore wing broader, abdomen with broad dorsal black bands

Hab Nilgiris, W slopes Enp 50 millim.

1234 Creatonotus flavimargo, n sp

of Differs from collars in the black spots on abdomen being small Wings with the black spots obsolescent, hind wing with a marginal yellow band

Hab Bhamo, Burma (Fea) Erp 50 millim Type in Mus

Genora

B Abdomen yellow

1235 Creatonotus lactineus, Cram Pap Evot 11, pl 133, fig D, Moore, Lep E I Co pl 16, fig 12 (larva), C & S no 818
Bombyx sanguinolenta, Fabr Ent Syst 111, p 473
Alca marginata, Moore, P Z S 1883, p 15, pl 5, fig 1, C & S no 819

Differs from collars in having the red markings of a deep crimson tone, the band on head broader, in some specimens the black spots are entirely absent In the variety marginatus the marginal black spots of the bind wing have coalesced to form a complete band

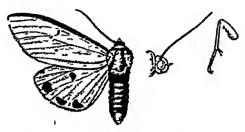


Fig 9 — Creatonotus lactineus, & 1

Larva black, with lateral tufts of red-brown hair, a subdorsal series of scarlet spots, dorsal, subdorsal, and lateral series of black spots, 1st, 3rd, 4th, and 5th somites with sublateral spots, 11th somite with two spots only.

Hab China, throughout India, Ceylon, and Burma; Java

Exp, 3 56, 2 66 millim

1236 Creatonotus negritus, Sioinh MS

Q. Differs from lactineus in nearly the whole abdomen and wings being suffused with black, fore wing with a white streak in cell and two on inner area, the costa with a crimson streak towards apex, cilia of both wings white

Hab Khásis Exp 62 millim Type in B M

1237. Creatonotus insolatus, Swinh P Z S 1889, p 404

3 Differs from lactineus in the head and collar being without the crimson bands, abdomen with black dorsal spots instead of bands. Wings with the black spots almost absent fore wing with the costal fascia narrow.

Hab. Thyetmyo, Burma Exp. 36 millim

1238 Creatonotus albistriga, Wlk Cat xxxi, p 303, C & S no 761

Differs from *insolatus* in the band on the head being yellow, the thorax tinged with ochreous, tegulæ with dark spots. Fore wing with the costal stripe yellow, the veins white, the interspaces fuscous, with white streaks in and below the cell. Hind wing with the spot in cell and marginal spots large or small.

Hab Ganjam Exp 44 millim

SECT III (Aloa) Antennæ of male bipectinate, serrate in female

1239. Creatonotus emittens, Wil. Cat m, p 638, Moore, Lep Ceyl n, p 74, pl 108, figs 3, 3a, C & S no 816
Aloa candidula, Wil. Cat m, p 704, C & S no 813
Aloa diminuta, Wilk Cat m, p 705, C & S no 815
Spilosoma punctistriga, Wilk Cat m, p 676, C & S no 821

Aloa flora, Swinh P Z S 1885, p 296, pl 20, fig 5, C & S no 817

Creatonotus rubricosta, Moore, P Z S 1872, p 573, C & S.

Head and thorax pinkish ochreous, abdomen crimson above. with series of dorsal and lateral black spots. Fore wing pinkish ochreous, a black fascia below median nervure from before the middle of cell to some way beyond its lower angle, the veins crossing it pale, a black submarginal streak above vein 5 Hind wing whitish, some specimens with a black spot at end of cell

The S Indian and Ceylon forms emittens and flora are much more suffused with pink than the Northern forms, in the former the markings of the fore wing are prominent, in the latter obsolete

or only developed at end of cell

Of the Northern forms, diminutus has the markings prominent, candidulus narrow or almost obsolete, punctistriga with a speck at end of cell and streak above vein 5 only

Hab NW Himalayas, Nepal, Manipur, and throughout S India and Ceylon Exp, & 30, 9 38 millim

1240 Creatonotus simplex, Will Cat xxxi, p 320, C & S no 771

Head and thorax brownish ochreous, andomen orange above, with a dorsal series of black spots. Wings uniform ochreous Underside of body smoky black

Hab Khandala, N Canara Eap, & 30, Q 38 millim

- 1241 Creatonotus fumipennis, Hmpsn Ill Het viii, p 54, pl 140.
- d Head and thorax brownish ochreous, abdomen suffused with fuscous and with doisal black segmental bands Wings smoky black fore wing with the costa and base of inner margin ochreous

Hab Nilgiris Eap 29 millim.

Genus PHISSAMA

Phissama, Moore, Lep E I Co p 362 (1858) Amphissa, Wik Cat III, p 684 (1855), præocc

Type, P transiens, Wlk

Range China, Philippines, throughout India and Burma,

Borneo, Celebes

Palpi extremely minute Antenne minutely ciliated in both sexes Hind tibiæ with a minute terminal pair of spuis. Fore wing narrow Venation as in Spilosoma

1242. Phissama transiens, Will Cat iii, p 675, Moore, Lep E I
Co pl 16, fig 13 (larva), C & S no 762
Amphissa vacillans, Will Cat iii, p 685, C & S no 763
Aloa isabellina, Will Cat iii, p 705

30 ARCTIID E

Head and thosax dirty white, palps and femora orange, abdo-

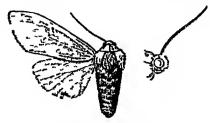


Fig 10—Phissama transiens, d

men orange above, white below, with dorsal, lateral, and ventral series of black spots. Fore wing very pale fuscous, the costa and base of inner margin whitish, black spots in and just beyond each angle of cell. Hind wing pale fuscous, some specimens with a black submarginal spot above vein 5 and two towards anal angle.

Typical transiens is almost white, the form vacillans darker fuscous

Larva black, blotched with red-brown and with tufts of redbrown hair, the lateral tufts arising from ferruginous tubercles, a dorsal broad white line, head black, marked with white

Hab China, Philippines, throughout India and Burma,

Borneo, Celebes E_{1p} , d 50, Ω 60 millim

Genus NICÆA

Nikea, Moore, Lep Ath p 11 (1879)

Type, N longipennis, Wlk Range Japan, N India

Palpi porrect, leaching just beyond the frons, antennæ ciliated in male. Hind tibiæ with two pairs of spurs. Fole wing long and narrow in male, the outer margin oblique, shorter in female Venation as in *Spilosoma*, except that veins 6 and 7 of the hind wing are stalked

1243 Nicæa longipennis, Wil. Cat 111, p C55, Butl Ill Het v, pl 82, fig 7, C & S nos 342, 803

Head and thorax black, vertex of head orange, abdomen orange, with doisal and lateral black spots. Fore wing black, with two

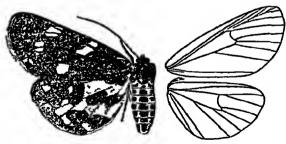


Fig 11 - Nican longipennis, Q 1

white specks below the costa near base; a bifid spot below middle of costa, a single spot below vein 2, a trifid postmedial spot

below the costa and bifid spot on vein 4, a submarginal series of specks. Hind wing orange, the base and costa black, a geminate black spot from median nervure to inner margin and another near anal angle, a large spot at end of cell joined to the apical and marginal black areas, a subapical white spot

Hab Kumaun, Sikhim, Silhet Eip, & 60-70, \, 64 millim

Genus LEUCOPARDUS, nov

Type, L tigrinus, Hmpsn Range Khási Hills

Palpi poirect, reaching beyond the frons, the second joint fringed with hair Antennæ simple in male Tibiæ with the spurs long Fore wing with the costa arched at base, vein 3 from before angle of cell, 4 and 5 from angle, 6 from below upper angle, 7, 8, 9, and 10 stalked Hind wing with the outer margin slightly angled at vein 3, veins 3 and 4 stalked, 5 from above angle of cell, 6 and 7 from upper angle, 8 from just before middle of cell

1244 Leucopardus tigrinus, n sp

d Head, thorax, and abdomen whitish, slightly suffused with fuscous, the anal tuft ochreous. Fore wing white, with a fuscous streak along inner margin, two very oblique fuscous bands from the costa beyond the middle to interno-median interspace, a band

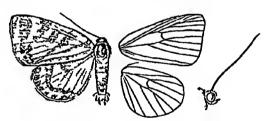


Fig 12—Leucopardus tigrinus, &

on discocellulars, postmedial, submarginal, and marginal bands ending in a yellow patch at anal angle, with some waved black lines on it in continuation of the fuscous bands. Hind wing white, with the base fuscous, a large spot at end of cell, a submarginal curved band, a series of marginal spots.

Hab Khásis Erp 43 millim Type in coll Moore

Genus CAMPTOLOMA

Camptoloma, Feld Reis Nov p 2 (1875)

Type, C interioratum, Wlk, from China Range Japan, China, Assam Palpi slender and poriect Antennæ simple Tibiæ with the spurs long Fore wing with the costa arched at base, the aper rounded, outer margin very oblique, inner margin short and rounded, vein 3 from before angle of cell, 4 and 5 on a short stalk or from cell, 6 from below upper angle, 7, 8, 9, and 10 stalked Hind wing with veins 3 and 4 from angle of cell 5 from above angle, 6 and 7 stalked, 8 from just before middle of cell

1245 Camptoloma binotatum, Bull A M N H (5) vii, 1881, p 35, C & S no 566 Camptoloma flagrans, Swinh A M N H (6) vii, p 214

Q Head, thorax, and abdomen orange-yellow, the last with the extremity crimson, tegulæ striped with black. Fore wing yellow, a black line from base of costa crossing the cell and running along vein 2, where it is met by a line from middle of costa, a black line on discocellulars, postmedial, submarginal, and

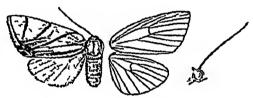


Fig 13.—Camptoloma binotatum, Q 3

marginal lines all terminating in a scarlet patch at anal angle, which sends a streak inwards below vein 1 and one on each side of vein 3, two black spots on cilia towards outer angle. Hind wing bright orange

Hab Shillong Evp 44 millim

Genus MOOREA, nov

Groten, Moore, P Z S 1805, p 797 (preocc)

Type, M argus, Wlk

Range Sikhim, Khási Hills

Palpi poriect, of moderate length, the first two joints fringed with hair Antenne simple Hind tibes with two pairs of minute spurs. Fore wing with vein 3 from before end of cell, 4 and 5 from the end, 6 from upper angle, 7, 8, 9, 10 stalked, 11 running close alongside of or touching 10. Hind wing with vein 3 from before angle of cell, 4 and 5 from angle, 6 and 7 from upper angle, 8 from below middle of cell.

1246. Moorea argus, Will Trans Ent Soc (3) 1, 1862, p 73, C & S no 798 Grotea elegans, Moore, P Z S 1865, p 797, pl 43, fig 1, C & S no 681 Head, thorax, and abdomen golden yellow, third joint of palpi black, collar with paired black spots, tegulæ with two pairs of spots, thorax with three spots, abdomen with dorsal, ventral, and two pairs of lateral spots. Fore wing golden yellow, some black spots near the base, numerous large black spots centred with bluish white, apical area black, with some bluish-white spots

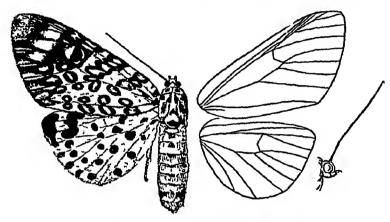


Fig 14 -Moorea argus, & 2.

beyond the cell and towards outer angle, a small yellow spot below the costa, and a subapical band of white spots from below the costa to vein 4. Hind wing golden yellow, with a black subbasal spot and antemedial, medial, submarginal, and marginal series, the two latter conjoined into patches towards costa and at apex

Hab Sikhim, Khásis. Eip, & 125, 2 130 millim

Genus CALPENIA

Calpenia, Moore, P Z S 1872, p 571.

Type, C saunders, Moore

Range Sikhim, Khási Hills, Burma

Palpi obliquely porrect, reaching beyond the frons, and fringed with hair Antennæ simple in female Tibiæ with the spurs short Fore wing long and broad, vein 3 from before angle of cell, 4 and 5 from angle, 6 from upper angle, 7, 8, 9, 10 stalked, 11 almost touching 10 Hind wing with vein 3 from before angle of cell, 4 and 5 from angle, 6 and 7 stalked, 8 from before middle of cell

1247 Calpenia khasiana, *Moore, P Z S* 1878, p 5, C & S no 542

2 Head black, thorax pale brown, the tegulæ fringed with orange, abdomen orange, with dorsal, ventral, and two pairs of VOL II

lateral blackish spots Fore wing pale reddish brown, with three yellow spots below the costa, a pale fascia in interno-median interspace joined by a postmedial maculate band with two series of small orange spots beyond it. Other specimens have the spots below the costa obsolete, and the postmedial maculate band reduced to two or three spots. Hind wing orange, with some basal dark streaks, medial, postmedial, submarginal, and marginal series of spots.

ARCTITUE

Hab Khásis, Bernardmyo, Burma Evp 92 millim

1248 Calpenia saundersi, *Moore*, P Z S 1872, p 571, pl 33, fig 1, C & S no 543

P Head, thorax, and abdomen orange, from and third joint of palpi black, vertex of thorax and collar marked with black, tegulæ each with a white patch edged with black, abdomen with

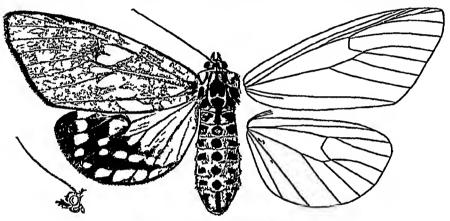


Fig 15—Calpenia saundersi, Q 1

dorsal, ventral, and two pairs of lateral black spots, becoming streaks on the anal segment. Fore wing olive-fuscous, with an orange patch at base, subbasal and antemedial series of small pale yellow spots, a medial series of large spots, and postmedial and submarginal series of small spots. Hind wing with the basal area pale yellow, the outer area olive-fuscous, with postmedial and submarginal pale yellow series of spots, the edge of the yellow area dentate

Hab Sikhim Exp 100 millim

Genus CALLIMORPHA

Callimorpha, Lati Gen Crust Ins iv, p 220 (1809) Hypercompa, Steph Ill Brit Lnt, Haust ii p 67 (1829) Carcinopyga, Ield Reis Nov p 2, pl 101, lig 3 (1875)

Type, C dominula, Linn, from Europe Range Europe, China, Himalayas, Assam, Burma Palpi porrect and long Antennæ of male minutely cliated Hind tibiæ with two pairs of spurs. Fore wing rather long and narrow, vein 3 from before angle of cell, 4 and 5 from angle, 6 from upper angle, 9 arising from 10 and anastomosing with 8 to toim the areole. Hind wing with vein 3 from before angle of cell, 4 from angle, 5 from above angle, 6 and 7 stalked or from cell, 8 from before middle of cell.

1249 Callimorpha principalis, Koll Hugel's Kaschnur, iv, p 465, pl 20, fig 2, Butl Ill Het vii, pl 138, fig 3 (larva), C & S no 806

Hypercompa flavicolor, Moore, P Z S 1879, p 397, C & S no 800

Head crimson, palpi with a black spot on each joint, a black spot on frons and two at back of head, collar black, edged with crimson, thorax orange, the tegulæ and vertex striped with metallic green, abdomen crimson above, pale yellow below, with

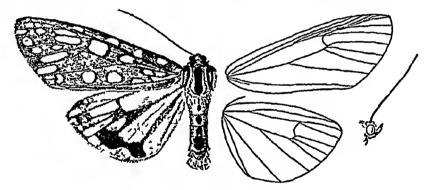


Fig 16 - Callimorpha principalis, of

dorsal and lateral series of spots, legs black, marked with crimson and pale yellow. Fore wing metallic green, with numerous yellow spots. Hind wing orange, the veins streaked with black, a submarginal series of large black blotches, centre of outer margin black.

A variety from Sikhim has the strenks on the nervures of hind

wing very broad and occupying most of the wing

Larva black, with three setiferous tubercles to each somite, a narrow orange and yellow dorsal stripe whitish between the somites, a white subdorsal stripe, a lateral band composed of white transverse strime, legs yellow

Hab Kashmir, NW Himalayas, Sikhim, Burma Evp 86

mıllım

1250. Callimorpha similis, Moore, P Z S 1879, p 397, C & S no 808

Differs from principalis in being paler. Fore wing with the

spots very pale yellow, or all white except the basal and costal spots. Hind wing with the ground-colour white, the black markings much reduced, and the veins often but slightly tinged with black.

Hab Sikhim Exp, of 54, 2 66 millim

1251 Callimorpha plagiata, Wlk Cat iii, p 655, Butl Ill Het v, pl 85, fig 1, C & S no 805

Differs from principalis in the ground-colour of the head, thorax, and abdomen being orange, tegulæ not fringed with orange, palpi and frons black, abdomen with black bands. Fore wing with the spots in interno-median interspace large, one large spot beyond the cell, and a series of large elongate submarginal spots. Hind wing without the black streaks on veins, medial and submarginal series of spots, some specimens with a spot at origin of vein 2

Hab NW Himalayas, Eastern Himalayas, Yunnan, Assam,

Nagas Exp, of 71, 2 92 millim

1252 Callimorpha equitalis, Koll Hugel's Kaschmir, iv, p 465, pl 20, fig 3, C & S no 799

Differs from principals in the head and abdomen being paler crimson, the latter with dorsal black bands, thorax with the ground-colour very pale yellow. Fore wing fuscous, with hardly a tinge of green, the spots large and white, the basal and costal spots slightly yellow, the postmedial spots large, obliquely placed and joined to the submarginal spot between veins 3 and 4. Hind wing pure white, the veins fuscous a submarginal series of spots which are obsolescent except towards anal angle, cilia fuscous except at middle.

Hab Himalayas from Simla to Sikhim, Khasis, Burma Exp,

3 70, 2 80 millim

1253 Callimorpha nyctemerata, Moore, Lep Ath p 38, C & S no 804

Differs from equitalis in the head, thorax, and abdomen being orange. Fore wing with an extra spot below the centre of median nervure, the second and fourth spots in interno-median interspace small, the postmedial oblique series large, the apical spots forming more complete series. Hind wing with the veins but slightly tinged with black, the submarginal series of spots more or less complete, some specimens with an incomplete medial series.

Hab Sikhim Exp, & 62, 2 70 millim

*1254 Callimorpha? lichenigera, Feld Reis Nov pl. 101, fig 3, C & S no 767

9 Head and thorax grey Antenna ochreous, abdomen

orange above, black at sides, the black encroaching on the upperside of the anal segment. Fore wing grey, irrorated with black, the base yellow, five transverse yellow bands with waved edges, the postmedial band excurved round end of cell. Hind wing crimson, a black spot at end of cell, two elongate submarginal patches and a small spot above yein 1

Felder's MS genus Carcinopyga will probably be found to stand

when this insect is rediscovered

Hab Ladák Erp 70 millim

Genus AXIOPŒNA.

Axiopœna, Ménét Bull Acad Pétersb 1x, p 42 (1841).

Type, A mawa, Eichw

Range Central Asia, Baluchistan

Palpi long, rather slender, and porrectly upturned Antennæ simple in both sexes Hind tibiæ with two pairs of minute spiris. Fore wing large and ample, vein 3 from before angle of cell, 5 from just above angle, 6 from upper angle, 7, 8, 9 stalked, 10 from the cell Hind wing with vein 3 from before angle of cell, 5 from above the angle, 6 and 7 stalked, 8 from before middle of cell

1255 Axiopæna maura, Eichw Zool Spec 11, p 196 Axiopæna fluviatilis, Swinh Trans Ent Soc 1885, p 351, pl 9, fig 7, C & S no 2273

Head and thorax smoky black, collar fringed with crimson Abdomen black, the segments fringed with crimson Fore wing smoky black Hind wing with the basal half crimson, the outer

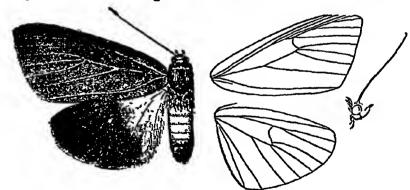


Fig 17 -Axiopana maura, o 3

half smoky black, some specimens with a crimson spot beyond the cell

The amount of crimson suffusion on underside of hind wing varies greatly, being least in the form fluviatilis

Hab Central Asia and Quetta Evp, ♂ 100, ♀ 112 millim

Genus PELOCHYTA

Pelochyta, *Hubn Verz* p 171 (1818) Amerila, *Will Cat* 111, p 725 (1855)

Type, P vidua, Cram, from Africa

Range Atrica, Formosa, throughout India, Burma, and

Ceylon, Aru, Australia, New Butain

Palpi porrectly upturned and slender Antennæ nearly simple Fore wing with the costa arched, the outer margin long and obliquely curved, veins 3, 4, 5 from angle of cell, 6 from below upper angle, 7, 8, 9 stalked, 10 from cell Hind wing with the anal angle slightly produced, outer margin nearly straight, apex slightly acute, veins 3, 4, 5 from close to angle of cell, 6 and 7 from upper angle, 8 from near end of cell

1256 Pelochyta astrea, Drury, Ins 11, pl 28, fig 4, C & S no 764
Phalena melanthus, Cram Pap Exot 111, pl. 286, fig B

Phalæna melanthus, Cram Pap Exot in, pl. 286, fig B Amerila rhodopa, Wilk Cat xixi, p 305, C & S no 766 Rhodogastia fraterna, Moore, Trans Int Soc 1884, p 356, C & S no 765

Palpi crimson, with a black spot on each joint. Antennæ redbrown, with the basal joint crimson. Head and thorax whitish fuscous, the head with two black spots, collar with two pairs of

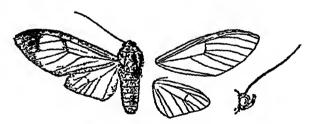


Fig 18 -Pelochyta astrea, 3

spots, pro-, meso-, and metathorax each with a pair of spots Fore wing hyaline, with two black spots at the base, the margins, apical area, and a band on discocellulars pale fuscous Hind wing hyaline, with a marginal fuscous band Legs crimson, with the outer side of the femora and tibiæ whitish fuscous

Larva green, slightly hairy, with subdorsal and lateral rows of

small black spots, spiracles brown, head yellow

Hab Formosa, throughout India, Ceylon, and Burma Exp, 5 50-54, 2 64-72 millim.

Subfamily LITHOSIINÆ

Moths of diurnal or crepuscular habits, in the typical section the fore wing is very long and narrow, and both wings have lost some of their veins. Proboscis present. Mid tibiæ with one pair of spuis, hind tibiæ generally with two pairs.

Larva sparsely covered with hair and forming a slight coccoon,

most of the typical section being lichen-feeders.

Key to the Genera

a Fore wing long and ample, the outer margin oblique a' Fore wing with an areole a2 Fore wing with the areole long a Palpi upturned, the 2nd joint reaching vertex of head a4 Palps with the 3rd joint long and spatulate 1 ELIGMA, p 43 64 Palm with the 3rd joint much shorter and acute as Fore wing with the apex and outer margin rounded 2 Migoplastis, p. 44 b' Fore wing with the apex produced, the outer margin straight 3 DILEMERA, p 45 b3 Palpi with the 2nd joint not reaching vertex of head a4 Hind wing with vein 3 from some way before the end of cell 7 CUROBA, p 52 b4 Hind wing with vein 3 from the end of cell 6 Argina, p 50 b' Fore wing with the areole short as Hind wing with vein 8 given off from 7 near end of cell 5 Secusio, p 50 δ3 Hind wing with vein 8 given off from 7 before middle of cell 4. NYCTEMERA, p 46 b' Fore wing with no areole a2 Fore wing with vein 10 stalked with 7, TATARGINA, p 54 b2 Fore wing with vein 10 from the cell 8 CASTABALA, p 53 b Fore wing long and narrow, the outer margin short Both wings with vein 5 present a2 Hind wing with vein 5 from above angle of cell a3 Hind wing with verns 3 and 4 from 10 DEIOPIA, p 54 Hind wing with veins 3 and 4 stalked at Fore wing with an areale 12 Kerala, p 62 64 Fore wing with no areole Fore wing with vein 10 from the 11 CYANA, p 56 b' Fore wing with vein 10 stalked with 7, 8, 9 14 Adrepsa, p 64

b2 Hind wing with veins 4 and 5 stalked		
or from a point		
a ³ Palpi upturned		
a4. Palpi with the 3rd joint reaching		
above vertex of head, fore wing		
with vein 10 from beyond the		
areole	15	Agrisius, p 64
b4 Palpi with the 3rd joint not reach-		-
ing above vertex of head, fore		
wing with vein 10 from the		
areole		
a. Hind wing with veins 4 and 5		[p 65
from the cell	16	MACROBROCHIS,
b ⁵ Hind wing with yeins 4 and 5		•
stalked		
at Thorax and abdomen some-		
what stout and hairy	17	SIDYMA, p 67
6° Thorax and abdomen slight		
and smooth .	10	GNOPHRIA, p 69
b ³ Palpi porrect		, _F
a4 Fore wing of moderate breadth		
as Fore wing with no areole .	18	Manavira, p 68
b Fore wing with an areole	20.	PARAONA, p 71.
b' Fore wing long and nairow, no	20,	т, р ти
areole	21	PHILAGRIA, p 71
b' Fore wing with vein 5 present, hind wing	~.	z zzaniczaniy p
with vein 5 absent		
a ² Fore wing with no areole		
as Hind wing with veins 3 and 4		
stalked	12	DOHERTIA, p 63
b3 Hind wing with veins 3 and 4 from	40	Dominion, p
cell		
at Fore wing with the apex rounded	22	CHRASEGUIA, p. 72
b4 Fore wing with the apex truncate,		Omitted than, p
then produced to a point	38	Oxacme, p 94
b ² Fore wing with an arcole	00	omiomo, p
a ³ Palpi porrect, hind wing with yours		
3 and 4 stalked	23	CONISTIS, p 73
b's Palpi upturned, hind wing with		[p 75
veins 3 and 4 from cell	26.	PTLOPTEROTA,
c' Both wings with vein 5 absent		
a ² Palpi porrect		
as Hind wing with vein 4 present		
at Fore wing with the costa slightly		
arched, the outer margin oblique.		[p.73
as Hind wing with the cell open	24	CHRYSORADDIA,
6º Hind wing with the cell closed		,
as Fore wing with the cell very		
long and narrow		
a Hind wing with veins 6 and		
7 stalked or from end of cell		
as Fore wing with veins 6		
and 7 curved downwards		[p 74
after their origin	25.	THYSANOPTYX,
be Fore wings with veins 6		
and 7 straight	27	PRABHASA, p 76
###### A #############################		

 b⁷ Hind wing with vein 7 given off before end of cell b⁶ Fore wing with the cell shorter and broader a⁷ Fore wing with vein 10 not 	28	Lophonfura, p 78
stalked with 7, 8, 9 b. Fore wing with your 10	29	Lітновіа, р 79
stalked with 7, 8, 9 b' Fore wing triangular, with the costa	30	Мітнима, р 86
very much arched c ⁴ Fore wing with the apex acute,	32	Nishada, p 88
the outer margin straight and erect, the outer angle produced b' Hind wing with vein 4 absent in both	31	Trulisna, p 80
sexes b ² Palpi upturned .	33 34	GAMPOLA, p 89 SIMAREEA, p 90
c Fore wing short, the outer margin obliquely curved		,,
a'. Hind wing with vein 3 absent a ² Fore wing very short, broad and rounded, veins 6 and 7 stalked, 8, 9, 10, 11 running people attacks to the		
10, 11 running nearly straight up to the costa, 11 and 12 anastomosing b ² Fore wing of normal shape	35	Hemonia, p 91
a ³ Both wings with vein 6 absent b ³ Vein 6 absent in fore wing, present	37	Costarcha, p 93
of Both wings with vein 6 present	40	Narasodes, p 95
a Fore wing with veins 5 and 10 present		
as Fore wing with veins 7, 8, 9 stalked		
as Palpi porrect	36	ÆMFNE, p 91
b ⁵ Palpi upturned b ⁵ Fore wing with veins 7, 8 stalked,	39	UTRICULOFERA, [p 94
9 from cell	41	DIDUGA, p 96
b4 Fore wing with veins 5 and 10 absent, 7, 8, 9 stalked	49	[p 97 Pseudoblabes,
b' Hind wing with vein 3 present	***	1 or
a ² Wings clothed with well-formed scales		[p 100
 a³ Hind wing with vein 5 absent b² Hind wing with vein 5 present 	4 6	Anachrostis,
slender, and spatulate at tip b4 Palpi with the 3rd joint short or	65	Cacyparis, p 126
moderate a ⁵ Hind wing with veins 3, 4, 5 stalked and much bent	66	Chandica, p 127
b ⁵ Hind wing with veins 4 and 5 from near angle of cell or stalked		, •
as Fore wing with veins 6, 9, and	10 4	7
10 from cell, 7 and 8 stalked 4 be Fore wing with veins 6, 7, 8	to (AVRONINIA' b at
stalked, hind wing with veins 4 and 5 on a long stalk	[4]	Padenia, p 98

6 Fore wing with veins 6, 7 and		
8, 9 stalked a ⁷ Fore wing of normal shape	45	Eugoa, p 99
b' Fore wing short, broad, and rounded	47	TRISCHALIS, p 101
d ⁶ Fore wing with veins 7, 8, and 9, 10 stalked		37
a^7 Palpi porrect b^7 Palpi upturned	49 50	NOTATA, p 102 Holograspldon,
es Fore wing with veins 8, 9 stalked, 7 from cell	48	TROPACME, p 101
J ⁶ Fore wing with veins 7, 8, 9 stalked		
a ⁷ Palpi upturned, reaching vertex of head		
a ⁵ Fore wing with yeins 4 and 5 from cell, hind		
wing with veins 3, 4 and 6, 7 from cell	52	IDOPTERUM, p 103
b° Fore wing with veins 4 and 5 stalked, hind wing		
with veins 3, 4 and 6, 7 stalked	53	SCAPTFSYLE, p 104
b ⁷ Palpi short and porrect a ⁸ Hind tibin with one pair		
of spurs b* Hind tibiæ with two pairs	54	GURNA, p 105
of spurs a Antennæ with the shaft		
clothed with hair b* Antennæ with the shaft		NEPITA, p 105 [p 107
smoothly scaled g^6 Fore wing with veins 8, 9, 10		MILTOCHRISTA,
stalked b ² Wings sparsely clothed with hau-like	51	Тисностіл, р 103
scales and semidiaphanous as Antennæ with the basal joint not		
dilated a^4 Hind wing with veins 3 and 4		
stalked as Fore wing with vein 11 given off		F 701
from 10, then anastomosing with 12	58	[p 121 Machærophora,
b ⁵ Fore wing with vein 11 free from 10	60	Тишматна, р 122
b4 Hind wing with yeins 3 and 4 from cell	E17	(Farance and a 190
a ⁵ Wings narrow b ⁵ Wings broad		TRICHOLEPIS, p 120 XANTHOCRASPFDA,
b's Antennæ with the basal joint di- lated and hairy		[p 121
a' Antennæ with the basal joint of moderate length		
a ⁵ Fore wing without veinlets be- tween vein 12 and the costs		
a ⁶ Fore wing with veins 9 and 1 present	61	Nudania, p 122

6 Fore wing with veins 9 and
11 absent, the cell almost
reaching the apex 62 PALÆOPSIS, p 124
6 Fore wing with veinlets between
vein 12 and the costa, veins
7,8 and 9, 10 stalked 63 SCHISTOPHLEPS,
6 Antennæ with the basal joint exceedingly long 64 CHAMAITA, p 125

Genus ELIGMA.

Eligma, Hubn Verz p 164 (1818) Panglima, Moore, Lep E I Co p 297 (1858) Surina, Wik Proc Nat Hist Soc Glasyow, 1, p 333 (1869)

Type, E narcissus, Cram
Range Africa, China, throughout India and Ceylon, Penang;
Java

Palpi upturned, the second joint reaching above vertex of head, the third very long and slender, and somewhat spatulate at tip Antennæ with the cilia minute. Tibiæ thickly scaled. Fore wing narrow, the costa much arched at base, the outer margin nearly erect to vein 3, then oblique to outer angle, veins 3, 4, 5 from close to lower angle of cell, 6 from just below upper angle, 7 and 10 from a long areole formed by the anastomosis of 8 and 9. Hind wing with veins 3, 4, 5 from close to lower angle of cell, 6 and 7 from upper angle.

1257 Eligma narcissus, Cram Pap Exot 1, pl 73, figs E, F, C & S. no 559

Head and thorax grey-brown, spotted with black, abdomen bright yellow, with dorsal and lateral series of black spots. Fore legs grey-brown, spotted with black. Mid and hind legs yellow,

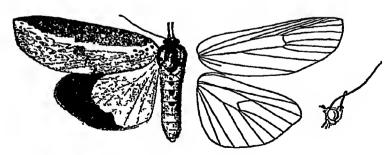


Fig 19 -Eligma narcissus, &

with black spots on the tibiæ, the tarsi grey-brown Fore wing grey-brown, the costal area with an olive tinge, an irregular and diffused curved white fascia from base to apex, some basal and

subbasal black spots, a waved black line from lower angle of cell to inner margin, a submarginal series of black spots, those towards outer angle conjoined into streaks. Hind wing bright yellow, the apical area black, suffused or streaked with dark blue, and terminating at vein 1 b, cilia white at tips.

Hab China, Ganjam, S India, Ceylon, Penang; Java. Exp,

♂ 68, ♀ 80 millim

Genus MIGOPLASTIS.

Migoplastis, Feld Verh zool-bot Ges Wien, 1868, p 285 Dondera, Moore, A M N H (4) xx, 1877, p 344 Pachyphilona, Butl Trans Ent Soc 1875, p 325

Type, M correcta, Wlk. Range Nilgiris, Ceylon

Palpi poriect, extending considerably beyond the frons Antennæ bipectinate in both sexes. Mid and hind tibiæ with the spurs minute. Fore wing with the apex and outer margin rounded, vein 3 from before angle of cell, 5 from above it, 6 from upper angle, 7 and 10 from a long areole formed by the anastomosis of 8 and 9. Hind wing with vein 2 from before angle of cell, 5 from the angle.

SECT. I (Migoplastis) Hind wing of male not excised at anal angle, veins 6 and 7 from cell, the branches of antennæ long

1258 Migoplastis correcta, Wik Cat xxxi, p 217, C & S no 546 Migoplastis ceylanica, Feld Verk zool-bot Ges Wien, 1868, p 285, Moore, Lep Ceyl 11, pl 100, fig 5

Head and thorax ochreous brown, a black speck on vertex of head, two on collar, two on each patagrum, and one each on promeso-, and metathorax, abdomen yellow, with a dorsal and two lateral paired series of black spots. Fore wing otherous brown, with a wide indistinct postmedial paler band, only defined on the disk. Hind wing yellow

Hab. Ceylon Exp 52 millim.

SECT II Hind wing of male excised, folded, and lobed at anal angle, the branches of antennæ shorter

A Hind wing with veins 6 and 7 stalked

1259 Migoplastis hampsoni, Swinh P Z S 1889, p 402, pl 43, fig 2

Differs from correcta in the head, thorax, and fore wing being rather browner, the band of the last better defined Hind wing brownish fuscous, the outer area jellow in male, female with the

whole hind wing yellow Abdomen fuscous in male and without spots

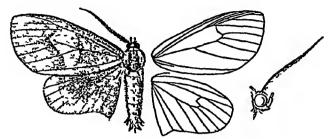


Fig 20 -Migoplastis hampsoni, & 1

Hab Nılgırı plateau Exp 58 millim

B (Dondera) Hind wing with veins 6 and 7 from cell.

1260 Migoplastis alba, Moore, A M N H (4) xx, p 344, Lep Ceyl
11, pl 98, fig 3, Hmpsn Ill Het 1x, pl 157, fig 25, C & S
no 479

Head and thorax yellowish white, vertex of head with a black dot, the spots on thorax as in the preceding species, except that the prothorax has a pair. Abdomen yellow, with a series of dorsal black bands and two paired series of lateral spots. Fore wing pure white. Hind wing with a slight fuscous tinge. Underside fuscous

Hab Ceylon Erp, ♂ 50, ♀ 52 millim

Genus DILEMERA.

Deilemera, Hubn Verz p 178 (1818).

Type, D evergista, Stoll, from Amboina

Range NE India, Borneo, Amboina, Ternate

Palpi upturned, the second joint reaching vertex of head, the third porrect. Antennæ pectinate in both sexes, the branches short in female. Tibiæ with the spurs short. Fore wing with the apex rather produced, the outer margin straight, vein 3 from before angle of cell, 5 from above it, 6 from upper angle or from above it, 7 and 10 from a long areole formed by the anastomosis of 8 and 9. Hind wing with vein 3 from before angle of cell, 5 from above it, 6 and 7 stalked, 8 from after middle of cell

SECT I Hind wing of male with no fold on inner margin, the anal angle rounded

1261 Dilemera arctata, Wik Cat vii, p 1664, C & S no 460 Nyctemeia maculosa, Wik Cat xxxi, p 198, C & S no 464

Head, thorax, and abdomen yellow, head with black spots on

frons and vertex, collar, tegulæ, and thorax spotted with black; abdomen with short segmental bands above, and two pairs of lateral spots. Fore wing white, with some black spots near the base,

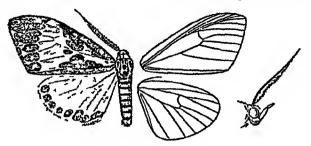


Fig 21 - Dilemera arciata, &

broad fuscous streaks along costa and inner margin from the base to the medial maculate band, a broad marginal fuscous band of more or less conjoined streaks, in some specimens having white spots on the margin. Hind wing white, with a marginal series of rounded fuscous spots, those towards anal angle elongate.

Hab Sikhim, Khásis, Nágas Exp 60 millim

SECT II Hind wing of male with a very large fold on inner margin and the anal angle produced

1262 Dilemera carissima, Swinh Trans Ent Soc 1891, p 477, pl 19, fig 1

d Differs from arctata in having paired dorsal black spots on abdomen instead of bands. Fore wing with a quadrate white submarginal spot below the apex, the fuscous markings of fore wing and submarginal series of hind wing very variable.

Hab Sikhim, Khásis, Nagas Exp 56 millim

Genus NYCTEMERA

Nyctemera, Hubn Verz p 178 (1818) Leptosoma, Boisd Voy de l'Astrolabe, Lép p 197 (1832). Trypheromera, Butl Ill Het v, p 45 (1881) Zonosoma, Butl Ill Het v, p 44 Pitasila, Moore, P Z S 1877, p 599

Type, N lacticinia, Cram

Range Africa, Madagascar, China, Philippines, Formosa,

Indian, Malayan, and Australian regions, New Zealand

Palpi porrectly upturned Antennæ bipectinate in both sexes, the branches shorter in females. Fore wing with vein 3 from before the angle of cell, 5 from above it, 6 from upper angle, 7 and 10 from the short areole which is formed by the anastomosis of 8 and 9. Hind wing with vein 3 from before end of cell, 5 from angle or from above it, 6 and 7 stalked or from upper angle, 8 from before middle of cell.

SECT I Male without a tuft of hair on the tibia of fore leg

1263 Nyctemera lacticinia, Cram Pap Erot 11, pl 128, fig E, Moore, Lep Ceyl 11, p 99, figs 1, 1 a (larva), C & S no 463

Head, collar, and thorax yellowish white, spotted with black, abdomen white, the extremity yellow, three black spots on the first segment and slight black bands on the next six above, two paired series of lateral black spots. Fore wing hair-brown, a broad white streak on base of inner margin, an oblique post-medial band of five white spots. Hind wing white, a broad marginal brown band with irregularly curved inner edge.

Larva dull red, a dorsal and two lateral series of radiating tufts of fine black hairs arising from black tubercles, two long

forwardly projecting tufts on 1st somite

Pupa red-brown, in a rolled-up leaf

Hab China, throughout India, Ceylon, and Burma, Java,

Ceram Exp, 5 42, 2 46-48 millim

1264 Nyctemera latistriga, Wik Cat 11, p 397, Moore, Lep Ceyl
11, pl 99, fig 2, C & S no 472
Nyctemera inconstans, Voll Tijds Dierk 1, p 47 (1863)
Nyctemera arcuatum, Voll Tijds Dierk 1, p 45
Nyctemera regularis, Snelleman, Mid-Sum, Lep p 34 (1880)

Differs from lacticinia in having the broad white streak on base of inner margin of fore wing replaced by narrow streaks on costa, vein 1, and inner margin, and by a very broad streak below the median nervure, the postmedial band of spots with the upper two conjoined, the fourth very large, and fifth absent

Hab Throughout India, Ceylon, and Burma, Andamans,

Sumatra, Borneo, Java. Exp, & 44, Q 46 millim.

1265 Nyctemera tripunctaria, Linn Mus Lud Ulr p 392, C & S no 466 Nyctemera atralba, Hubn Verz p 178

Differs from latistriga in the abdomen having black spots on the vertex instead of bands, fore wing with the streaks below the median nervure, on vein 1, and on inner margin being much longer, the postmedial spots conjoined into a regular band, hind wing with the inner edge of the marginal band evenly curved and waved

Hab Assam, Malacca, Singapore Exp 50-54 millim

1266 Nyctemera plagifera, Wil. Cat 11, p 400, Butl Ill. Het v, pl 88, fig 3, C & S no 471

Head, thorax, and abdomen marked as in tripuncturia, except that the tegulæ have three black spots instead of a spot and streak

Fore wing with the costa dark at base, the subcostal, median, and submedian nervures outlined in black as far as the very irregular medial band, an irregular band on discocellulars sending streaks along the veins to the marginal band, which extends from the

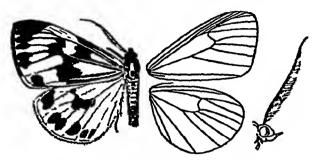


Fig 22-Nyctemera plagifera, 3

costs to vein 3, and has a dentate inner edge and three or four white marginal spots, a black spot near outer angle. Hind wing white, with an irregular black blotch at lower angle of cell and five black submarginal spots

Hab China and throughout India. Exp 58 millim.

1267 Nyctemera cenis, Cram Pap Exot 11, pl 147, fig E, C & S no 461 Nyctemera interlecta, Will Cat 11, p 400, Butl Ill Het v, pl 88, fig 2, C & S no 473

Head black, the frons yellow, with a black spot at centre, thorax orange, spotted with black, abdomen orange, banded with black above, two lateral paired series of black spots. Fore wing white, two black subbasal spots and a streak below vein 1 and two below the median nervure, a medial series of six irregularly placed spots, the spot between veins 2 and 3 small, a series of longitudinal streaks on the margin often more or less conjoined into a band. Hind wing white, a spot at centre of costs, and a marginal conjoined series interrupted at vein 5 and below vein 2

Hab Himalayas from Simla to Sibságar, Khásis, Nágas, Yunnan Exp 48 millim

1268 Nyctemera varians, W.R. Cat 11, p 400, C & S no 469
Pitasila moolaica, Moore, P Z S 1878, p 847, pl 53, fig 10,
C & S no 468

Head yellow, thorax and abdomen yellowish white, spotted with black, tegulæ with two black spots, abdomen with dorsal and ventral series of black spots and two paired lateral series. Fore wing white, two black spots near the base, the black markings extremely irregular and variable, forming very ill-defined subbasal, antemedial, postmedial, submarginal, and marginal bands,

all of which are interrupted, the last two coalescing in places Hind wing white, two spots on the costa, one at origin of vein 2, and four or five on outer margin, the upper spot irregular the two near anal angle smaller and often coalescing, other small spots may also be present

Hab Sikhim; NE India and Burma Exp 56-62 millim

Nyctemera selecta, Wil. Cat 11, p 399

Nyctemera bipunctella, Wil. Cat xxxv, p 1880

Nyctemera abraxoides, Wilk Journ Linn Soc vi, p 98

Pitasila disrupta, Buti A M N H (5) xix, 1887, p 223

Nyctemera leucospilota, Moore, P Z S 1887, p 599, pl 59, fig 7,

C & S no 467

Differs from varians in the abdomen being yellow only at the extremity. Wings with the markings deeper black. Fore wing with the whole apical and outer areas black, with three or four white spots, and connected with the antemedial band by a streak along the median nervure. Hind wing with a broad black marginal band with waved inner edge, and with apical, subapical, and medial white spots

The spots on vertex of abdomen are sometimes absent, occa-

sionally those towards the extremity become short bands

Hab Andamans, Philippines, Borneo, Solomons Exp, of 50, 2 54 millim

1270 Nyctemera variolosa, Feld Reis Nov pl 129, fig 15, C & S no 470

Differs from selecta in the head, thorax, and abdomen being without the yellow tinge, abdomen with broad black bands above Fore wing with the two antemedial bands more regular and complete, a postmedial band from vein 2 to inner margin, the marginal black area narrower, with more white spots on it. Hind wing with the marginal black band broken up into extremely irregular spots

Hab Andamans Exp 48 millim

SECT II Male with a large tuft of hair arising from the base of tibia of fore leg

1271 Nyctemera coleta, Cram Pap Exot 1v, pl 368, fig H, C & S no 462

Nyctemera mgrovenosa, Moore, P Z S 1879, p 394, id Lep Ceyl n, pl 98, figs 4, 4a (larva), C & S no 465

Differs from tripunctaria in the lower three spots of the postmedial band of fore wing being separated and having another spot below them towards outer angle, cilia white below the apex and at outer angle Hind wing with the cilia white below the apex, and in most specimens at anal angle.

YOL II.

The form nigrovenosa from Ceylon has veins 3 and 4 of the hind wing black, and the spots of the postmedial band of fore wing smaller

Larva hairy, purple, the anterior somites yellowish, each somite black, marked with short dorsal and lateral white streaks.

Pupa yellow, spotted with black

Hab Assam; Ceylon, Burma, Malacca, Java, Ceram. Eap 50-58 millim

Genus SECUSIO

Secusio, Wlk Cat 11, p 558 (1854)

Type, S. strigata, Wik

Range E Africa, Natal; Aden, S India

Palpi long and porrectly upturned Antennæ bipectinate in male, ciliated in female. Fore wing with vein 3 from before angle of cell, 5 from above it, 6 from upper angle, 7 from after the arcole, which is very short and gives off 10. Hind wing with vein 2 from before angle of cell, 5 from above it, 6 and 7 stalked, 8 from after middle of cell.

1272 Secusio strigata, Wlk Cat 11, p 559
Secusio parvipuneta, Hmpsn Ill Het viii, p 46, pl 139, fig 6
Nyctemera hymenæa, Gerst Arch f Nat xxxvii, p 360, and Van
d Decken, Reisen, 111, (2) p 377, pl xvi, fig 1

d Head and collar orange, the former with a fuscous mark on vertex, the latter with two fuscous spots, thorax fuscous, streaked with white near the base, a medial series of four white spots,

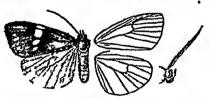


Fig 23 — Secusio strigata, d. 1

which are larger in the Natal form strigata than in parvipuncta from E Africa, Aden, and S India Abdomen and hind wing orange

9 with an extra white spot in the series on fore wing between

vens 3 and 4 Hab Natal, E Africa, Aden, S India Exp, 5 40, 2 32— 40 millim.

Genus ARGINA

Argina, Hubn Verz p 167 (1818)

Type, A. cribraria, Clerck
Range Africa, Mauritius, China, throughout India, Ceylon,
and Burma, Andamans, New Guinea, Australia

Palpi upturned, reaching the vertex of head, the 3rd joint short Antennæ ciliated in both sexes. Mid and hind tibiæ with minute terminal pairs of spurs. Hind wing of male with a fold on inner margin containing a glandular patch near the base, with a tuft of long hair beyond it, the anal angle produced to a point. Fore wing with veins 3, 4, 5 from close to angle of cell, 6 from upper angle, 7 and 10 from a long areole formed by the anastomosis of 8 and 9 Hind wing with veins 3, 4, 5 from the angle of cell, 6 and 7 from upper angle, 8 from middle of cell

1273 Argina argus, Koll Huqel's Kaschmir, iv, p 467, pl 21, fig 3, Moore, Lep Ceyl 11, pl 105, figs 1 a, b, c (larva), C & S no 741

Head, thorax, and fore wing scarlet or brownish red, two black yellow-ringed spots on collar, two on tegulæ, and three on thorax, the collar outlined with brilliant scarlet, abdomen scarlet, with dorsal, ventral, and two paired lateral series of black spots. Fore wing with six transverse series of yellow-linged black spots, each series curved, irregularly disposed and variable as to size and number, the postmedial series bifurcating towards the costa. Hind wing scarlet, with one black spot at end of cell, another at origin of vein 2, another at its middle, and a submarginal series, a few small spots on margin, all these being somewhat variable

Larva purple-black, with a few dorsal hairs, head and a lateral line from 4th to 10th somites reddish, a dorsal series of transverse

white streaks

Hab Throughout India, Ceylon, and Burma Exp, 3 55, 2 64 millim

1274 Argina syringa, Cram Pap Erot 1, pl v, fig C, Moore, Lep Ceyl 11, pl 105, figs 2, 2 a, b, c (larva), C & S no 749
Bombyx crotalariæ, Fabr Ent Syst 111, p 473

Differs from argus in the head, thorax, and fore wing being pale pinkish brown, the spots larger and more prominent, those on the fore wing being placed on clouded fuscous bands. Abdomen and hind wing crimson

Larva purplish grey with sparse hairs, series of black dorsal transverse bands and lateral spots, head red

Pupa in a thin network cocoon

Hab Throughout India and Ceylon, Australia Evp, σ 60, Ω 64 millim

1275 Argina cribraria, Clerch, Icon Ins 11, pl 54, fig 4, C & S no 743
Phalæna astræa, Drury, Ill Evot Ins 11, pl 11, pl 6, fig 3, C & S no 742
Bombyx pylotis, Fabr Syst Ent p 585, C & S no 748
Deiopeia duleis, Wlk Cat 11, p 569, C & S no 744
Argina guttata, Rambur, Lép And 11, p 229, C & S no 745
Argina notata, Butl Trans Ent Soc 1877 p 365, C & S. no 746

52 ARCTIDÆ

Differs from argus and cribraria in the head, thorax, and fore wing being orange-yellow or whitish, abdomen and hind wing bright orange, the markings similar

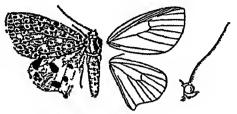


Fig 24 -Argina cribraria, &

The form dulcis has the ground-colour of the head, thoiax, and fore wing almost pure white, in pardalina it is pale yellow, the spots of the fore wing being placed on white bands, in guttata = notata = astraa the spots are larger and the ground-colour bright yellow, in pylotis the ground-colour is more orange, the spots clouded with yellow

Hab Mauritius, China, throughout India, Ceylon, and Burma,

New Guinea Exp, & 35-40, \$2 35-50 millim

Genus CUROBA

Curoba, Wih Cat xxx1, p. 272 (1864)

Type, C sangarida, Cram Range, S India and Ceylon

Palpi porrect the third joint of moderate length. Antennæ bipectinate in male, the branches short, serrate in female. Fore wing with vein 3 from before angle of cell, 5 from just above angle, 6 from upper angle, 7 and 10 from a long areole formed by the anastomosis of 8 and 9. Hind wing with vein 3 from some way before angle of cell, 5 from above the angle, 6 and 7 from upper angle, 8 from middle of cell. Hind tibus with two pairs of spurs.

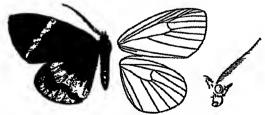


Fig 25 -Curoba sangarida, & 1

1276 Curoba sangarida, Cram Pap Exot iv, pl 381, fig D, C & S nos 478, 781 Phalæna mopsa, Drury, Ill Exot Ins in, pl in, fig 3, C & S no 779 Curoba fasciata, Will Cat xxxi, p 272 Head and thorax brown, collar outlined with crimson, abdomen crimson, with brown segmental bands above and two paired series of lateral spots. Fore wing black-brown, an irregular yellowish-white band from the costa before the middle to outer angle, cilia tipped with white. Hind wing crimson, the basal area brown, a broken irregular postmedial band of black spots, outer margin brown, sending streaks along the veins towards the spots.

Hab Nilgiris, Ceylon Exp 48 millim

Genus CASTABALA

Castabala, Wik Cat xxx1, p 270 (1864)

Type, C roseata, Wlk Range Sikhim, Calcutta

Palpi short and porrectly upturned Antennæ chiated in male Tibiæ with the spurs short Fore wing elongate, the apex rounded, the outer margin oblique, vein 3 from before angle of cell, 4 and 5 on a short stalk, 6 from upper angle, 7, 8, 9 stalked, no areole Hind wing with vein 3 from before angle of cell, 4 and 5 on a short stalk, 6 and 7 stalked, 8 from near end of cell

1277 Castabala roseata, Will Cat xxxx, p 270, Butl Ill Het v, pl 87, fig 1, C & S no 729

Head and collar crimson, antennæ brown, thoiax brown with a bluish tinge, metathorax suffused with crimson, abdomen crimson. Fore wing dark brown, the base bluish, a yellow patch

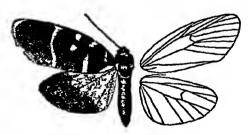


Fig 26 — Castabala roseata, & 🕆

on inner margin at base, a subbasal yellow band from the costa; an antemedial yellow band interrupted at cell, a medial spot on costa and another in cell, a postmedial curved band and marginal band widest at apex. Hind wing crimson, with a broad marginal dark brown band not reaching anal angle

Hab Sikhim; Calcutta Exp 52 millim

Genus TATARGINA

Tatargina, Butl Trans Ent Soc 1877, p 366

Type, T pucta, Wlk

Range 8 China, Burma

Palpi rather short and porrect Antennæ simple in female Mid and hind tibiæ with minute terminal pairs of spurs. Fore wing with vein 3 from before angle of cell, 4 and 5 on a short stalk, 6 from upper angle, 7, 8, 9, 10 stalked Hind wing with veins 3, 4, 5 from close to lower angle of cell, 6 and 7 from upper angle, 8 from middle of cell

- 1278 Tatargina picta, Wil. Cat xxxi, p 263, C & S no 750
 Tatargina formosa, Butl Trans Ent Soc 1877, p 366, pl. viii, fig 17
- Q. Head and thorax scarlet, collar with two whitish patches, with a black spot centred with grey on each, tegulæ, meso- and metathorax with similar patches; abdomen yellow, red at base,

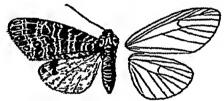


Fig 27 — Tatargina picta, Q 1

with dorsal and lateral series of black spots and black ventral bands. Fore wing grey, crossed by six scarlet bands, each on a white ground edged by black, the veins white, outlined with black, clia scarlet. Hind wing crimson, with four black spots on the costa near the apex, and sometimes other subapical and discal spots.

In the variety formosa the crimson and white black-edged bands

of the fore wing are much narrower than in picta

Hab S China; Moulmein, Prome Exp 54-58 millim

Genus DEIOPIA.

Deiopeia, Steph Ill Brit Ent, Haust 11, p 92 (1829) Utetheisa, Hubn Verz p 168 (1818), gen. non descr

Type, D pulchella, Lann

Range Universally distributed

Palpi porrect, extending beyond the frons Antennæ ciliated Fore wing long and narrow, the outer margin short and somewhat erect, vein 3 from before angle of cell; 4 and 5 from the angle; 6 from upper angle, 7 and 10 from a short areole Hind wing with vein 5 from above angle of cell 6 and 7 from upper angle, 8 from middle of cell.

DEIOPIA 55

SECT. I. Hind wing of male with no fold or glandular tuft on inner margin.

1279 Deiopia pulchella, Linn Syst Nat 1 11,884, Kirby, Eur Butt & Moths, p 102, pl 22, figs 12, 12 a (larva), C & S no 739

Phalena lotrix, Cram Pap Exot 11, pl. 109, fig E, C & S. no 738

Denopera thyter, Butl Trans Ent. Soc. 1877, p 361, C. & S no 740

Noctua pulchra, Esp Schmett Eur vi, p 570

Delopela antennata, Swinh A M N H (6) x11, p 215

Head and thorax yellow, the collar and tegulæ each with two black spots, pro-, meso-, and metathorax with one each, the third joint of palpi black, abdomen white. Fore wing white, with five

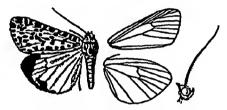


Fig 28 — Deropia pulchella, d 1

interrupted scarlet bands with series of black spots between them, a marginal series of black spots. Hind wing semi-diaphanous white, some specimens with black marks on the discocellulars, a very irregular black submarginal band, broad at apical area and between veins $1\ b$ and 3

The form lotrux has the third joint of the palpi yellow, and the black spots on thorax reduced, thyter has the black spots on fore wing also reduced to minute specks. The Malayan and Australian form antennata has the antennæ of male serrate, sometimes almost forming pectinations; it occurs from the Nicobars and Philippines eastward.

Larva dark grey, with a dorsal white band and subdorsal series

of red spots, head yellow

Hab Europe, Africa, throughout India and Ceylon, Philippines, Malay Archipelago, New Guinea, Australia and the Pacific groups Exp, o 40-46, o 45 millim

SECT II. Hind wing of male with a fold and glandular tuft on inner margin

1280 Deiopia venusta, Hubn Samml exot Schmett p 29, no 261, figs 521, 522
Deiopeia cruentata, Butl Ill Het v, p 38, pl 86, fig 10, C & S no 737

Differs from pulchella in the palpi being black with a yellow band; the head black, with a white spot on vertex, the black spots of the thorax larger. Fore wing with the ground-colour black

the red spots being placed on white patches, an oblique white irregular postmedial band. Hind wing with the irregular marginal black band wider

In the form cruentata the spot on head and the ground-colour of thorax are yellow, the red spots of the fore wing are smaller and placed on yellowish-white instead of pure white patches

Hab Madagascai, Mauritius, Sikhim, Sumatra Exp, 540,

♀ 50-54 millim

Genus CYANA

Cyana, Wil. Cat 11, p 528 (1854) Doliche, Wil. Cat 11, p 529 Bizone, Wil. Cat 11, p 548 Chionema, Herr-Schaffer, Sammi

Chionæma, Herr-Schaffer, Samml aussereur Schmett p 21 (1850)

Type, C detrita, Wlk

Range Africa, Madagascar, China, throughout India, Ceylon,

and Burma, Sumatra, Java, Borneo

Palpi slender and upturned. Antennæ ciliated Fore wing of male with a more or less strongly developed fringe of hair from the centre of costa on upperside and lobe on underside, which much distorts the subcostal nervures Vein 5 absent in male, vein 6 usually absent in female, 7,8,9 stalked Hind wing with veins 3 and 4 stalked, 5 from above angle of cell, 6 and 7 usually stalked

SECT I Forewing in female with veins 4 and 5 stalked, male with the costal tuft large, the lobe single, elongate, and large

- A Fore wing with vein 6 absent in female. Hind wing with veins 6 and 7 from angle of cell
- a Fore wing of male with three black spots, of female with one
 - Male with a large patch of modified chocolate scales on disk of fore wing on underside, a similar patch in upper part of cell of hind wing on upperside, the costa being highly arched
- 1281 Cyana peregrina, Wlk Cat 11, p 551, C & S no 668
 Bizone quadimotata, Wlk Char Undescr Het p 90, C & S
 no 671

Lithosia alborosea, Wik Cat xxxi, p 230, C & S no 656 Bizone pallens, Butl Trans Ent Soc 1877, p 338, C & S no 667 Bizone puella, Mooie, Lep Ceyl 11, p 103, figs 3, 3 a (nec Drury)



Fig 29 Cyana peregrina, Z

Palpi crimson, head and thorax white, one scarlet band on collar and two on thorax, abdomen with a crimson tinge. Fore wing white, a subbasal scarlet band, ante- and postmedial nearly straight oblique bands, the former inwardly edged with black, the latter outwardly, a marginal

crimson band, which in the male is continued along the costa to the postmedial band Hind wing pale crimson

In the form pallens the black edges to the ante- and postmedial bands are obsolete, the markings of an orange tone, the hind wing very pale

Larva forms a large cocoon of extremely open network

Hab China, throughout India, Ceylon, and Burma, Sumatra Exp., & 23, & 30 millim

b' Male without sexual patches or arched costa of hind wing

1282 Cyana puella, Drury, Ill Erot Ins 11, p 3, pl 2, fig 2, C & S no 670

Differs from peregrina in having the antemedial band of fore wing excurved below the costa, the postmedial band incurved and somewhat irregular

Hab Dharmsala, Nepal, Bombay, S India. Ceylon, Java

Exp, 3 28, 2 36 millim

b Fore wing of male with three red spots, female with one

1283 Cyana amabilis, Moore, P Z S 1877, p 597, pl 59, fig 2, C & S no 657

Differs from peregrina in the antemedial band of the fore wing being further from the base and more erect, the ante- and post-medial bands without black edges

Hab Andamans, Nicobars Exp 22 millim

- B Fore wing with vern 6 present in female, hind wing with the costa normal, no modified patch of scales, verns 6 and 7 stalked.
- 1284 Cyana effracta, Will Cat n, p 546, C & S no 663

Head, thorax, and abdomen white, thorax with an orange band, end of abdomen in female with a large ochreous tuft. Wings white, fore wing with subbasal and antemedial nearly straight orange bands, a spot in the cell, a slightly curved medial band, three orange spots in end of cell, a highly curved postmedial band, four submarginal spots

Hab Nepal, Sikhim, Burma Exp 27 millim

- SECT II Fore wing in female with veins 4 and 5 from cell, 7, 8, 9 stalked
- A Male with the costal tuft large, the fold large and bilobate
 a Fore wing with one black spot in both seres
- 1285 Cyana perornata, WTh Cat n, p 548, Butl Ill Het 1, pl 86, ing 8, C & S no 669

Differs from perequina in the fore wing having in some specimens a complete irregular maiginal band, whilst in others it is reduced

to some subapical streaks, male with some scarlet between the postmedial band and apex. Hind wing white, the outer area, and in some specimens the whole wing, more or less tinged with pink

Hab Sikhim; Assam; Borneo; Java. Exp., & 48, 2 54

millim.

b Fore wing of male with three black spots, of female with two 1286. Cyana bianca, Wlk Cat vii, p 1684, C & S no 660

Differs from peregrina in the scarlet bands of the fore wing being much broader; the black edges to the ante- and postmedial bands broad and prominent, the black spots large and prominent Hind wing deeper crimson

In a female from the Karen Hills the crimson bands of the fore wing are not wider towards inner margin, and in a female from Bhamo all the crimson markings are replaced by orange

Hab Sikhim, Cachar, Burma, Penang; Andamans. Evp

40 millim

- c. Fore wing with three black spots in both sexes
- 1287 Cyana subornata, Wik Cat ii, p 550, Moore, Lep Ceyl ii, pl 103, fig 4, C & S no 673
 Bizone linatula, Swinh Trans Ent Soc 1891, p 135
 - 2 The markings as in peregrana

The variety linatula has slender black edges to the ante- and

postmedial bands

Hab Khandála, Matheran, N. Canara; Ceylon, Andamans, Borneo Exp. 36 millim

- B Male with the costal tuft large, the fold very large and trilobate

 a Fore wing with three black spots in both sexes
- 1288 Cyana candida, Feld Revs Nov pl 108, fig 17, C & S no 731.

Pure white, collar with a crimson band, tegulæ and vertex of thorax with crimson spots. Fore wing without bands, the basal half of costa streaked with crimson Hind wing pure white

In a female from Kulu, NW Himalayas, the crimson spots on tegulæ and thorax are absent, and in another from Dalhousie the band on collar is also absent, the costal band on fore wing almost obsolete, as also the black spot at lower angle of cell

Hab NW Himalayas, Sikhim, 8000 to 10,000 feet. Exp. &

40, 2 48 millim

1289 Cyana signa, Wlk Cat 11, p 550, C & S no 672
Bizone fasciculata, Wlk Cat v11, p 1684, C & S no 664.
Bizone adita, Moore, Lep E I Co p 306, pl 7a, fig 11
Bizone signa, var walkeri, Elw P. Z S 1890, p 393, pl. 32, fig 7

of Pure white, palpi black, collar and tegulæ with narrow crimson bands, a small spot on vertex of thorax. Fore wing with a basal crimson spot on costa, a narrow obliquely curved antemedial band, the costa crimson from the base to the band, a postmedial curved narrow band, a black spot towards end of cell and one in each angle, the two latter being conjoined into a streak in one specimen, the costal fold on underside ochreous or pink

CYANA.

Q Without the crimson streak on base of costa, the lower black spot at origin of vein 3 instead of at angle of cell, the postmedial band angulated as well as curved, in some specimens the black spots are reduced to specks, one specimen having the spot at

upper angle of cell only

The form fasciculata has the markings of an orange tone, whilst in adita they are crimson. The variety walkers, Elwes (male unknown), from Sikhim, has a crimson band on metathorax, the bands of fore wing broader, the postmedial band doubly curved instead of angled, the black spots large, and the subbasal band more complete

Hab Himalayas, from Kulu to Sikhim, 7000 to 10,000 feet,

Khásis, Burma. Evp, & 44, Q 46 millim

b Fore wing of male with three black spots, of female with two spots

1290 Cyana puer, Elwes, P Z S 1890, p 392, pl 32, fig 8

Head and abdomen white, thorax buff, striped with white, Fore wing white, the basal and outer areas buff, an antemedial scarlet angulated band, a postmedial nearly straight and slightly oblique band, outwardly edged with black, a black spot on the costa beyond the postmedial band. Hind wing buff

Hab Sikhim, Khásis, Nágas, Manipur Evp 40 millim

1291 Cyana guttifera, Wik Cat vii, p 1779, C & S no 666 Bizone triguttata, Wik Chai Undescr Het p 89, C & S no 674

Differs from orama in having the distal segments of abdomen ochreous, the antemedial band of fore wing less bent outwards towards inner margin, the postmedial band more so Hind wing yellow, the costal area and cilia white

Hab' NW Himalayas, Sikhim, Nágas, Khandála, Anda-

mans Evp 32 millim

1292 Cyana sikkimensis, Elives, P Z S 1890, p 395

Differs from guttifera in having the costa streaked with black at base, the upper black spot divided by the postmedial band, no marginal band, the hind wing white

Hab Sikhim, 7000 to 10,000 feet Exp, 342, 46 millim

60

1293 Cyana divakara, Moore, P Z S 1865, p 798, pl 43, fig 9,

Head, thorax, and abdomen white, collar and tegulæ banded with orange, thorax with two orange spots Fore wing white, with brownish-orange markings which occupy the whole wing except a basal patch which extends along the inner margin to near the centre, a streak on the subcostal nervure, a patch at end of cell on which are the three black spots, the two on the discocellulars being conjoined, a spot at centre of inner margin, the costal tuft white, with an uregular band from it to inner margin and a black speck below it, cilia and hind wing white side white, the costal and outer areas of fore wing suffused with fuscous, a dark lunule at end of cell of hind wing Hab Sikhim Erp, of 48, 2 36 millim.

c Fore wing of male with two black spots, female with three 1294 Cyana molleri, Ewes, P Z S 1890, p 395

Differs from dohe, tyr in being without the dark lunule at end of cell of hind wing on underside Hab Sikhim, Khasis Eap 38 millim

d Fore wing in both sears with three fuscous ring-spots in the cell

1295 Cyana detrita, Will Cat 11, p 529, Bull III Het v, pl 86, Barsine suffundene, WIA Cat ATM, p 250, C & S no 707

Head, thorax, and abdomen white suffused with fuscous Wing white, irrorated with fuscous and with ill-defined and much diffused subbasal, antemedial, postmedial, and submarginal fuseous bands, the three fuscous ring-spots filled in with white, the upper spot obsolescent in male, and usually filled in with black in

Hab Himalayas, Silhet, Nága Hills $m_l]_{lm}$ Eip, of 28, 9 38

1296 Cyana gelida, WIK Cat II, p 529, Butl IIl Het v, pl 86,

Head, thorax, and abdomen white, thorax and abdomen much suffused with fuscous or olite band with some fuscous suffusion before and beyond it, Fore wing white, with a subbasal yellow ante- and postmedial curved yellow or olive bands, the inner area between them similarly coloured, the ring-spots on a fuscous clouded area which extends beyond the postmedial band, an irregular marginal vinous-red band, not reaching the apex Hind Hab Kangra, Sikhim, Silhet Eap 32-36 millim

C Male with the costal tuft very minute, the fold minute and unilobate

a Male with three black spots in the cell

- 1297 Cyana bellissima, Moore, P Z S 1878, p 27, pl 111, fig 13, C & S no 659
- d Head and collar white, the latter fringed with crimson, thorax and abdomen crimson. Fore wing pinkish, a crimson subbasal band ending at vein 1, an antemedial broad crimson oblique band widest at inner margin, a similar curved postmedial band, a black subcostal streak beyond the postmedial band, the outer area buff. Hind wing bright crimson

If the bands of the fore wing narrow, a narrow buff submarginal band instead of the whole outer area being buff, in a specimen from E Pegu this band is crimson, hind wing with the apex, margin, and cilia white

Hab Mussooree, Sikhim, E Pegu Eap, 346, 251-64 millim

1298 Cyana coccinea, Moore, P Z S 1878, p 28, pl m, fig 14, C & S no 661

d Head and collar ochieous, the latter fringed with crimson, thorax and abdomen crimson, the anal tuft ochreous Wings dark crimson, fore wing with some black subbasal specks, a broad excurved antemedial band, an incurved submarginal band with dentate outer edge

Hab Sikhim Erp 53 millim

1299 Cyana harterti, *Elues*, P Z S 1890, p 398

Differs from guttrfera in having the black spots of the fore wing smaller, the yellow bands narrower Hind wing pure white

Hab Upper Assam Eap 24 millim

b For evering with three yellow conjoined spots in the cell in both seres

1300 Cyana gazella, Moore, P Z S 1872, p 572, pl 33, fig 4, C & S no 665

Head, thorax, and abdomen white, the thorax much suffused with pale orange. Fore wing white, a short basal pale orange band, subbasal, antemedial, postmedial, and marginal bands connected by transverse spurs and the three conjoined cell-spots into reficulations. Hind wing white

Hab NW Himalayas, Sikhim Erp, & 36, 2 48 millim

- D Male with the costal tuft small, the fold small and bilbate
 - a Fore wing with three black spots in both seves
- 1301 Cyana arama, Moore, Lep E I Co p 308, pl v11 a, fig 10, C & S no 658

White, the palpi black, collar and tegulæ banded with yellow. abdomen with the distal portion suffused with crimson wing with subbasal, antemedial, postmedial, and submarginal obliquely curved yellow bands, the three black spots large in female, smaller in male, the upper spot being placed outside the postmedial band below the costa Hind wing white, more or less suffused with pale pink, a dark lunule at end of cell on underside Hab. Kulu, Sikhim, Khásis Exp 54 millim

1302 Cyana dohertyi, Elwes, P Z S 1890, p 394, pl 32, fig 4

Differs from arama in having the abdomen white, the antemedial band of fore wing less bent outwards towards inner margin, the postmedial band strughter, the upper black spot at angle of cell Hind wing pure white, with a dark lunule at end of cell on underside

Hab Sikhim, Nága Hills Exp 40 millim

Genus KERALA

Kerala, Moore, P Z S 1881, p 329

Type, K punctilineata, Moore

Range Japan, Sikhim, Naga Hills

Palpi rather long and obliquely porrect Antennæ minutely ciliated Fore wing long and narrow, the outer margin short and erect, veins 3, 4, 5 from close to angle of cell, 6 from upper angle, 7 from the short areole, 10 from after it Hind wing with a patch of modified scales occupying the greater part of the disk, veins 3 and 4 stalked, 5 from above angle of cell, 6 and 7 stalked, 8 from middle of cell Retinaculum from median nervure in both sexes

- 1303 Kerala punctilineata, Moore, P Z S 1881, p 330, C & S no 1641 Kerala multipunctata, Moore, Lep Ath p 93, pl 1v, fig 4, C & S no 1640
- Head, thorax, and fore wing olive-green, the last with numerous dark specks on the veins, a speck of raised white scales in the cell, the discocellulars black, with laised white scales on their inner edge, the subcostal nervule streaked with red-blown, an indistinct antemedial double curred line, a postmedial oblique line bent outwards near inner margin, a submarginal lunulate black line, a slight marginal lunulate white line Hind wing

whitish fuscous, the raised glandular scales brown Abdomen whitish.

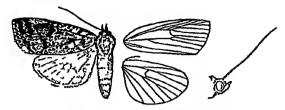


Fig 30 -Kerala punctilineata, d

9 Head reddish, thorax and abdomen fuscous white wing grey or without the raised white scales in cell and on discocellulars, the ante- and postmedial lines almost obsolete

In a male from the Nága Hills the head, thorax, abdomen, and

fore wing are suffused with pale red-brown

Hab Sikhim, Nága Hills Exp 40-42 millim

Genus DOHERTYA, nov

Type, D cymatophoroides, Hmpsn

Range Burma

Palpi short and porrect, antennæ minutely serrated, mid tibiæ with one pair of long spurs, hind tibiæ with two pairs wing long and narrow, the apex rounded, veins 4 and 5 from lower angle of cell, 6 from upper angle, 7, 8, 9, 10 stalked Hind wing with veins 3 and 4 stalked, 5 absent, 6 and 7 stalked. 8 from beyond middle of cell

1304 Dohertva cymatophoroides, n. sp

Head red-brown, the frons pale, thorax pale, the collar outlined with black, abdomen pale brown Fore wing pale

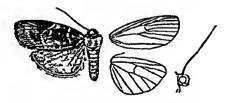


Fig 31 — Dohertya cymatophoroides, &

reddish brown, the basal half darkest, an indistinct curved dark antemedial line, a whitish speck towards end of cell and lunule on discocellulars, traces of a pale curved postmedial line, a series of marginal dark specks Hind wing fuscous

Hab E Pegu (Doherty) Exp 36 millim Type in coll

Elwes

Genus ADREPSA

Adrepsa, Moore, Lep Ath p 37 (1879)

Type, A stilbioides, Moore

Range Assam

- Q Palpi slight and porrect, antennæ nearly simple Fore wing long and narrow, the apea acute, vein 3 from before angle of cell, 5 from above the angle, 6 from below upper angle, 7, 8, 9, 10 stalked Hind wing with veins 3 and 4 stalked, 5 from above the angle, 6 and 7 stalked, 8 from middle of cell
- *1305 Adrepsa stilbioides, Moore, Lep Ath p 38, pl 11, fig 20, C & S no 732
- Q Head and thorax dark purplish grey, thorax speckled with white, abdomen yellow. Fore wing dark purplish grey, a curved subbasal series of black spots, a spot in the cell and one at end of it, a curved postmedial series and marginal series, all edged with a few white specks. Hind wing pale yellow, with a series of marginal black strice.

Hab. Assam Eap 48 millim.

Genus AGRISIUS

Agrisius, WW. Cat 111, p 723 (1855)

Type, A guttivitta, Wlk

Range Sikhim

Palpi upturned, the second joint reaching vertex of head, the third long Antennæ fasciculated Fore wing with vein 3 from before angle of cell, 4 and 5 from the angle, 6 from upper angle, 7 from areole, 10 from after it Hind wing with vein 3 from just before the angle of cell, 4 and 5 from the angle, 6 and 7 from upper angle, 8 from middle of cell

1306 Agrisius guttivitta, W7k Cat m, p 723, Butl Ill Het v, pl 87, fig 2, C & S no 545

Head and thorax white, the latter spotted with black, the basal

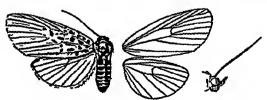


Fig 32 — Agrisius guitivitta, & 4

segments of abdomen white, the distal segments black fringed

with pale hairs Fore wing white, the basal half with numerous black spots, the veins of the outer area streaked with black Hind wing white, slightly suffused with fuscous, the veins smoky black

Hab Sikhim Exp 46 millim

- 1307. Agrisius fuliginosus, *Moore*, *P Z S* 1872, p 571, pl 33, fig 3, *C & S* no 544
 Agrisius japonicus, *Leech*, *P Z S* 1888, p 598, pl 30, fig 10
- Q Differs from guttintta in being wholly suffused with pale fuscous. Fore wing with the spots confined to the basal one-fourth of wing, except for two medial spots below the costa, and six between the lower angle of cell and inner margin, the veins of outer area slightly streaked with black. Hind wing uniform fuscous

Hab. China, "India" Exp 56 millim.

Genus MACROBROCHIS

Macrobrochis, Herr-Schaffer, Samml aussereur Schmeit p 72 (1856) Tripura, Moore, Lep E I Co p 298 (1858)

Type, M gigas, Wlk

Range Himalayas, Assam, Nága Hills

Palpi upturned, reaching vertex of head, and thickly scaled, the third joint short. Antennæ with the bristles long in male. Fore wing with vein 3 from before angle of cell, 4 and 5 from angle, 6 from upper angle or beyond it, 7 and 10 from the arcole, 11 often anastomosing with 12. Hind wing with vein 3 from before angle of cell, 4 or 5 from the angle, 6 and 7 stalked, 8 from before middle of cell.

SECT I (Macrobrochis) Fore wing with vein 6 from beyond angle of cell

1308 Macrobrochis gigas, Wik Cat ii, p 494, Butl Ill Het v, pl 87, fig 4, C & S no 556

Macrobrochis interstitalis, Herr-Schaffer, Samml aussereur Schmett fig 531.

Macrobrochis leucospilota, Moore, P Z S 1878, p 8, C & S no 557

Macrobrochis albicans, Butl Ill Het v, p 41, pl 87, fig 5, C & S no 554

Macrobrochis nigrescens, Moore, P Z S 1878, p 8, C & S no 558

Macrobrochis atrata, Butl Ill Het v, pl 87, fig 3, C & S no 555

Head and collar orange, thorax black above with a metallic green tinge, orange below, the tegulæ striped with orange, abdomen greenish black, the extremity and ventral surface orange, a series of lateral white marks. Fore wing black with a green vol. it

tinge, a small white spot at base, with a larger one beyond it, a spot in end of cell and another below it, a streak between veins 2 and 3, and an irregular submarginal series. Hind wing with the basal half white, the outer half black

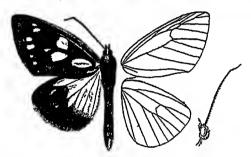


Fig 33 -Macrobrochis gigas, &

The form interstitutus has a white subbasal streak on inner margin of fore wing and the white markings larger, the hind wing with some whitish streaks on the marginal black area, in leave-spilota the white submarginal streaks of the hind wing are larger, and in albicans the submarginal series of fore and hind wings are very large and prominent, in nigrescens the white markings of both wings are very much reduced, and in atrata quite or almost absent

Hab Sikhim, Bhutan, Assam Eap, ♂ 80, ♀ 85 millim

SECT II (Tripura) Fore wing with vein 6 from the angle of cell

1309 Macrobrochis prasens, Moore, Lep E I Co p 299, pl 7 a, fig 6, C § S no 560

Head, thorax, and abdomen blue-black, collar and underside orange Fore wing blue-black, a basal white streak on inner margin, large patches in the interno-median interspace and end of cell, long streaks in the marginal interspaces. Hind wing white, the apical area black, a marginal black line

Hab Dalhousie, Dharmsala, Šikhim, Nága Hills. Evp 58 millim

1310 Macrobrochis pallens, n sp

Head and thorax greyish white, collar bright orange, abdomen purplish fuscous, thorax and abdomen orange below, legs bluegrey. Wings greyish white, fore wing with the basal half of costa narrowly blue-grey, disk of hind wing and veins clouded with fuscous.

Hab Dalhousie, Simla (Harford) Exp, 3 46, ♀ 54 millim Type in B M SIDYMA 67

Genus SIDYMA.

Sidyma, Wlk Cat vii, p 1686 (1856) Vamuna, Moore, P Z S 1878, p 10

Type, S albifinis, Wlk

Range Himalayas, Khási Hills

Palpi upturned, reaching vertex of head, the third joint short Thorax and abdomen somewhat stout and hairy. Fore wing with vein 3 from before angle of cell, 4 and 5 stalked, 6 from middle of areole, 7 from after areole, 10 from the areole. Hind wing with vein 3 from before angle of cell, 4 and 5 stalked, 6 and 7 from upper angle, 8 from middle of cell.

SECT I (Sidyma) Male with the antennæ bipectinated, the branches fine and of moderate length

1311 Sidyma albifinis, Wik Cat vii, p 1686, C & S no 561 Head, thorax, and abdomen fuscous, collar, underside of thorax,

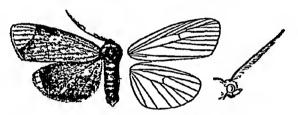


Fig 34 -Sidyma albifinis, &

and anal tuft ochreous. Wings fuscous, the apical area of both wings white

Hub NW Himslayes Eip, 5 42, 2 45 millim.

1312 Sidyma apicalis, Moore, P Z S 1878, p 9, pl 1, fig 2, C & S no 662

Differs from albifinis in being purplish black, the head, collar, and underside of thorax orange-red, the apical white patch of fore wing smaller, of hind wing absent

Hab Sikhim Eip ♂ 42, ♀ 44 millim

SECT II (Vamuna) Male with the antennæ ciliated

1313 Sidyma beema, Moore, P Z S 1865, p 798, C & S no 615

Palpi orange, the terminal joint brown Head, thorax, and fore wing uniform hair-brown, abdomen brown, with the extremity yellow Hind wing with the inner half brown, the costal and apical areas yellow, a marginal yellow band extending to anal angle

Hab. Sikhim Exp, & 47, Q 56 millim

1314 Sidyma maculata, Moore, P Z S 1878, p 10, pl 1, fig 5, C & S no 564

d Head, thorax, and abdomen pale ochreous, palpi orange, the third joint black, from black Fore wing pale ochreous, slightly clouded with brown Hind wing pile orange, three large submarginal black patches, the patch at middle largest Underside of fore wing with a black patch on vein 2 and a large patch on disk showing through to upperside

2 paler, with the black markings considerably reduced

Hab Sikhim Erp, & 46, 2 55 millim

1315 Sidyma remelana, Moore, P Z & 1865, p 798, C & S no 565 Gnophria quadrimaculata, Moschler, Stett ent Zeit 1872, р 352, С & S по 629

d Head white, prips black at tips, the proboscis yellow, a frontal band and antennæ black Thorax and abdomen white Fore wing white, the costs black, apical portion of outer margin black, an irregular black postmedial band widest at veins 2 to 5 and often interrupted below the costs Hind wing white, with a submarginal black spot at veins 2 to 5

2 The frontal band obsolescent Fore wing with the costs and outer margin white, or slightly tinged with black, the postmedial band reduced to a spot on vein 4 Hind wing with the

Hab Sikhim, Khásis Esp, & 44, Q 52 millim

1316 Sidyma bipars, Moore, P Z & 1878, p 10, pl 1, fig 11, C & S no 563

d Differs from remelana in the frons being black, the underside of head and thorax yellow, upperside of thorax fuscous, terminal segments of abdomen rellow, the whole outer area of fore wing black, a black submarginal band on hind wing from the interno-median interspace to vein 7

Q Upperside of thorax white, fore wing with the dark area reduced to a postmedial oblique band, the margins at apex black,

hind wing with the black patch reduced to a spot

Hab Sikhim Evp 52 milhm

Genns MAHAVIRA

Mahavira, Moore, P Z S 1878, p 11

Type, M flavicollis, Moore

Range Sikhum

Palpi porrect, reaching beyond the frons Antenna of male with extremely long bristles and fascicles of ciha Legs with the spurs long Fore wings with veins 4 and 5 from cell, 6 from upper angle of cell, 7, 8, 9 stalked, no arcole Hind wing with

vein 3 from angle of cell, 4 and 5 stalked, 6 and 7 stalked, 8 trom middle of cell

1317 Mahavira flavicollis, Moore, P Z S 1878, p 11, pl 1, fig 3, C & S no 571

d Pure white, collar and antennæ tinged with yellow Fore wing with the veins yellowish fuscous

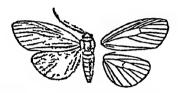


Fig 35 -Mahavira flavicollis, &

Hab Sikhim Exp 36 millim

Genus GNOPHRIA

Gnophria, Steph Ill Brit Ent, Haust ii p 98 (1829) Atolmis, Hubn Verz p 164 (1818), gen non descr Ghoria, Moore, P Z S 1878, p 12 Churinga, Moore, P Z S 1878, p 9 Hesudra, Moore, P Z S 1878, p 12

Type, G rubricollis, Linn, from Europe

Range Europe, Himalayas

Palpi upturned, reaching vertex of head, the second joint hairy Thorax and abdomen slender and smooth. Fore wing with vein 3 from before angle of cell, 4 and 5 stalked, 6 from or from after angle of cell, 7 and 10 from areole. Hind wing with vein 3 from angle of cell, 4 and 5 stalked, 6 and 7 stalked, 8 from middle of cell.

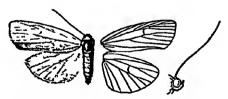


Fig 36 — Gnophria sericeipennis, Q

SECT I (Gnophria) Antennæ with short cilia and bristles
1318 Gnophria sericeipennis, Moore, P Z S 1878, p 13, C § S
no 575

P Frons fuscous; vertex of head white, collar yellowish

70

white, thorax fuscous, abdomen fuscous white, the anal tuft white, thorax fuscous, andomen fuscous white, the anal functions of the state of th wing white Underside of fore wing fuscous

1319 Gnophrie albocinerea, Moore, P Z & 1878, p 13, pl 1, fig 10,

of Differs from sericepennis in the tegulæ being white, with a fuscous streak Fore Wing With the inner fuscous area narrower the other white Timber fuscous area narrower Hind wing fuscous, the cilis white Underside fuscous, the inner margin of hind wing whitish

SECT II (Churinga) Antenna of male bipectinated 1320 Gnophria divisa, Moore, P Z S 1878, p 12, pl 1, fig 4,

ochrous anal tuft, Fore wing with the costal half yellow, the ocureous must curv fore wing with the costal num yenow, the reals walls with the costa black. Hind wing

1321 Gnophria rufifrons, Moore, P Z & 1878, P 10, pl 1, fig 12,

d Head and collar orange, thorax fuscous, the tegulæ fringed with yellow, abdomen orange-yellow Fore wing fuscous, a wallow streak broad costal yellow streak not reaching the apex, a yellow streak of much the wallow atreak and inner margin, cilia yellow Hind wing orange-yellow streak Q with the yellow streak to costa and inner margin of fore wing narrow

arrow Hab NW Himalayas, Sikhim Erp, & 55, \$ 64 milhm 1322 Gnophria postfusca, n sp

d Head and thorax dark leaden grey, abdomen paler, palpi and collar orange Fore wing dark leaden grey, costa narrowly orange from before middle to apex and underside of abdomen yellow Hind wing fuscous M_{oore} Exp 36 millim Type In coll

Genus PARAONA

Paraona, Moore, P Z S 1878, p 8

Tvpe, P splendens, Butl

Range Bombay

Palpi porrect Antennæ with short bristles in female Fore wing with vein 3 from before angle of cell, 4 and 5 from angle, 6 and 10 from the arcole, 7 from after it Hind wing with vein 3 from angle of cell, 4 and 5 on a short stalk, 6 and 7 stalked, 8 from middle of cell

1323 Paraona splendens, Butl Trans Ent Soc 1877, p 357, Moore, P Z S 1878, pl 1, fig 1, C & S no 567

9 Fuscous, the head, tegulæ, and metathorax metallic bluegreen, collar bright yellow Fore wing with a coppery tinge, the

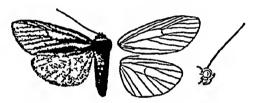


Fig 37 -Paraona splendens, Q

veins streaked with blue-green, especially the nervures near the base, a golden-yellow streak from the base below the median nervure

Hab Bombay Exp 44 millim.

Genus PHILAGRIA

Philagria, Kirby, Cat Lep Het p 336 (1892)

Type, P entella, Cram

Range India, Ceylon, and Burma, Borneo, Celebes, New Hebrides

Palpi porrect, the second joint fringed with hair Antennæ of male bipectinated, the branches short, and with a bristle from the end Fore wing very long and narrow, vein 3 from before angle of cell, 4 and 5 from angle, 6 from upper angle, 7,8,9, stalked, no areole Hind wing with veins 4 and 5 stalked, 6 and 7 on a short stalk, 8 from middle of cell

Philagria entella, Cram Pap Exot in pl 208, fig D, C & S no 570
Noctua delia, Fabi Mant Ins 11, p 140
Eonistis entelliola, Hubn Verz p 165
Noctua convoluta Fabi Sp Ins 11, p 215

72 ARCTIDÆ

Head, collar, and abdomen orange, thorax and extremities of tegulæ metallic blue-green Wings pale orange Fore wing with the costa, except the apex, blue-green, a medial blue-green band

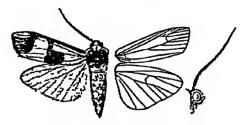


Fig 38-Philagria entella, &]

expanding into a large quadrate patch below the cell, a band from the costa before the apex joined to a large quadrate patch on outer margin Hind wing orange

Hab S. India, Ceylon, Burma, Borneo, New Hebrides

Evp, & 42, \ 46 millim

Genus CHRYSÆGLIA.

Chrysæglia, Butl Trans Ent Soc 1877, p 356

Type, C magnifica, Wlk

Range Himalayas and Assam, Borneo

Palpi porrect, the second joint fringed with hair Antennæ of male with strong cilia and bristles. Fore wing very long and narrow, vein 3 from before angle of cell, 4 and 5 from angle, 6 from upper angle, 7, 8, 9, stalked, 7 from before or from the same point as 9, no areole. Hind wing with vein 5 absent, 6 and 7 on a short stalk, 8 from middle of cell

1325 Chrysæglia magnifica, WM Journ Linn Soc vi, p 103, C & S no 569
Chrysæglia ferrifasciata, Moore, P Z S 1878, p 13, pl 1, fig 6, C & S no 568

Head, thorax, and abdomen orange-yellow, tegulæ metallic blue-

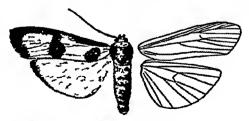


Fig 39 — Chrysaglia magnifica, 3

green Fore wing golden vellow, the costs with a blue-green fascia extending into middle of cell, a blue-green spot towards base of inner margin, a medial band widest in the interno-median

interspace, a marginal band, wide in male, narrow in female Hind wing yellow, the apical portion of outer margin fuscous

Hab Simla, Nepal, Sikhim, Khasi Hills, Sibságar, Nága Hills, Borneo Exp, & 50, Q 58 millim

Genus CONISTIS.

Œonistis, Hubn Verz p 165 (1818)

Type, & quadra, Linn

Range Europe, Japan, China, Sikhim

Palpi upturned, reaching vertex of head Antennæ ciliated in both sexes. Fore wing long and nairow, veins 3, 4, 5 from angle of cell, or 3, 4 on a short stalk, 6 from below upper angle, 9 rising from 10 and anastomosing with 7 and 8 to form the areole. Hind wing with veins 3 and 4 stalked, 5 absent, 6 stalked with 7 in female, absent in male, 8 from before middle of cell.

1326. Conistis quadra, Linn Syst Nat 1, p 840

of Palpi orange, the third joint black. Head black, the vertex orange, thorax orange, with a black spot on shoulders, abdomen ochreous, the anal tuft fuscous, a broad fuscous marginal band. Hind wing pale yellow, the costal area whitish fuscous

Q Uniform orange-yellow, abdomen and hind wing paler, fore wing with a postmedial blue-black spot on costa and another

on vein 2, cilia at apex black

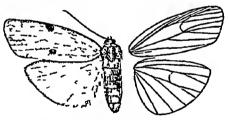


Fig 40—Eonistis quadra, Q

The Japan form dives, Butl, has a narrower fuscous margin to fore

wing in male, the female being indistinguishable

The single female from Sikhim has vein 5 of the tore wing absent, if this is found to be constant it will have to be transferred to the genus Lithosia, being possibly the female of L colon, Moschl, and E quadra removed from the Indian list

Hab Europe, Sikhim Eip, & 46, ♀ 48 millim

Genus CHRYSORABDIA

Chrysorabdia, Butl Trans Ent Soc 1877, p 357.

Type, C wridata, Wlk Range Himalayas, Assam, Burma Palpi short and porrect Antennæ of male with the cilia and bristles short. Fore wing very long and narrow, veins 3 and 4 from end of cell, 5 absent, 6 from upper angle, 10 from a eole, 7 from beyond it. Hind wing with vein 5 absent, the cell open, 8 from middle of cell. Males with a large patch of differently formed scales on the fore wing near base of inner area.

1327 Chrysorabdia viridata, Wik Cat xxxi, p 225, Moore, P Z S 1878, p 19, pl 2, fig 1, C & S no 628
Gnophria strigata, Moschler, Stett ent Zeit 1872, p 353, C & S no 627

d Head, collar, and tegulæ yellow, thorax-blue-black, abdomen yellow with a fuscous tinge Fore wing with a yellow band



Fig 41
Chrysorabdia wridata, Q 1

along the costa not extending to the base, a broad blue-black subcostal band, a yellow band below median nervure and vein 4, a broad blue-black band near the inner margin, which is yellow Hind wing pale yellow

Prore wing without the yellow band on costa, the upper

blue-black band narrow and extending along the costa, in one specimen not reaching the apex, the lower blue-black band oblique from the base to centre of outer margin

Hab Sikhim, Silhet Exp, 3 40, 2 42-48 millim

1328 Chrysorabdia bivitta, Wlk Cat vii, p 1682, C & S no 626 Lithosia disjuncta, Moore, P Z S 1865, p 797, C & S

d. Head, thorax, and abdomen yellow, thorax with a black spot on vertex and the tegulæ metallic blue. Fore wing greyish yellow, a narrow costal blue streak not reaching the apex, a broad blue fascia in interno-median interspace interrupted by the patch of scales being greyish yellow, an elongate blue patch from end of cell to near outer margin. Hind wing paler

2 without the black spot on thorax or blue tegulæ, fore wing with the costal fascia very broad, the medial fascia continuous

Hab NW Himalayas, Sikhun, Manipur, Burma Exp, o 50, 9 52-68 millim

Genus THYSANOPTYX, nov

Type, T tetragona, Wlk

Range Sikhim, Silhet, Naga Hills, Nilgiris; Borneo

Palpi porrect, the second joint fringed with hair Antennæ with the bristles and cilia long Legs long Fore wing long and narrow, male with a fringe of long scales in the base of cell on upperside and a fold extending to the end of cell on underside female with vein 2 from middle of cell, which is long and narrow,

3 and 4 on a short stalk, 5 absent, 6, 7, and 10 from the areole, 6 and 7 being curved, 11 anastomosing with 12 male, the cell extremely narrow so as to distort the neuration, 11 not anastomosing with 12 Hind wing with veins 3 and 4 stalked, 5 absent, 6 and 7 from upper angle of cell, 8 from middle of cell

1329 Thysanoptyx tetragona, Wll. Cat 11, p 510, Butl Ill Het v, pl 86, fig 14, C & S no 612

Teulisna tenuisigna, Moore, P Z S 1878, p 24, pl 2, fig 13, C & S no 611

Teulisna sordida, Butl Ill Het v, p 39, pl 86, fig 15, C & S no 610

Teulisna oblonga, Butl Trans Ent Soc 1877, p 355

of Frons black, head and collar white, thorax and extremities of tegulæ black, abdomen pale fuscous, the extremity ochreous



Fig 42 Thysanoptyx tetragona, 3

Fore wing white, with a large quadrate black patch below the end of the cell, a postmedial black spot on the costa, the apical portion of costa and cilia black. Hind wing pale ochreous

Q with the fore wing suffused with ochreous, the black patch extending into the cell, the postmedial spot

larger

In the form oblonga from Borneo

the quadrate patch is smaller and the hind wing white, sordida has a black spot near the base of fore wing, the outer area of hind wing suffused with fuscous

Hab Sikhim, Silhet, Nágas, Nilgiris, Borneo Exp, & 30-34,

♀ 36–38 millim

Genus PTYOPTEROTA, nov

Type, Pobscura, Hmpsn

Range Burma

of Palpi upturned, the second joint reaching vertex of head, the third short, antennæ minutely ciliated, claspers of male large, spurs on tibiæ long. Fore wing with the apex nearly rectangular, vein 2 much curved at base, 3 from before end of cell, 4 and 5 from angle, 8 and 9 anastomosing to form the arcole, a large tuft of long scales from subcostal nervure on underside from base to near end of cell. Hind wing with veins 3 and 4 from angle of cell, 5 absent, 6 and 7 on a short stalk

1330 Ptyopterota obscura, n sp

of Fore wing with a dark speck at base and spot above inner margin before the middle, obscure antemedial, medial, and postmedial sinuous lines, the medial extending from costa to below cell, a black speck at end of cell, an ill-defined submarginal

sinuous fuscous band Hind wing pale fuscous, the anal tuft othreous

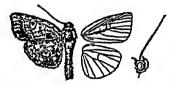


Fig 43 -Ptyopterota obscura, & 3

Hab Tenasserim (Doherty) Exp. 20 millim. Type in coll Druce.

Genus PRABHASA.

Prabhasa, *Moore*, *P Z S* 1878, p 25 Zadadra, *Moore*, *P Z S* 1878, p 25

Type, P venosa, Moore

Range Sikhim, Assam Hills, Burma

Palpi short and porrect, the first two joints clothed with long hair Antennæ with the bristles long Fore wing with vein 2 from beyond middle of cell, veins 3 and 4 stalked, 5 absent, 6 and 7 straight, male with a fringe of scales on upperside in the cell, which is very narrow so as to distort the neuration. Hind wing with veins 4, 5 and 6, 7 stalked, 5 absent, 8 from middle of cell

SECT I Fore wing with the apex subquadrate, the inner margin nearly straight, vein 11 anastomosing with 12 male with no areole, the fringe of long scales extending to end of cell

1331 Prabhasa venosa, Moore, P Z S 1878, p 26, pl 2, fig 16, C & S no 622

Pale fuscous brown Fore wing with an indistinct angulated postmedial fuscous band, and a more or less developed postmedial spot on costa, the costa whitish from the base to the band Hind wing pale fuscous

d with the fore wing uniform grevish brown, the fringe of

scales leaden grey, no postmedial spot on the costa

Hab Sikhim, Jaintia and Nága Hills, Burma Erp 37 millim

1332 Prabhasa fimbriata, n sp

d Head ochreous, thorax and abdomen fuscous, the latter with the anal tuft ochreous. Fore wing ochreous suffused with fuscous, the costal area and some indistinct streaks in the interspaces ochreous, a dark postmedial spot on the costa, with traces of a band from it to inner margin, the fringe of scales in the cell silvery leaden grey. Hind wing suffused with fuscous

- Q much paler, with all the markings of the fore wing obsolescent Hab Bernardmyo, Burma, E Pegu (Doherty) Exp, ♂ 30, ♀ 32 millim Type in coll Elwes
- 1333 Prabhasa flavicosta, *Moore*, *P Z S* 1878, p 26, pl 2, fig 17, *C & S* no 621
- Q Differs from fimbriata in the thorax, abdomen, and fore wing being dark brown, fore wing with the yellow costal fascia and postmedial black spot. Hind wing uniform brown Hab Khasis Exp 34 millim
- SECT II Fore wing with the apex rounded, the inner margin arched, vein 11 not anastomosing with 12 male with the tringe of long scales extending to end of cell, and no arcole

1334 Prabhasa plumbeomicans, n sp

o Differs from fimbiliata in the fore wing being uniform leaden grey, a broad costal ochreous fascia with a small black postmedial spot on it, traces of a postmedial line, the inner margin and cilia ochreous Hind wing ochreous, with the apical area fuscous

Q with the postmedial spot of the fore wing larger, the band more distinct, the marginal interspaces streaked with ochreous,

the hind wing more suffused with fuscous

Hab Nága Hills, 3000 feet (Doherty) Evp 30 millim. Type in coll Elwes

SECT III Fore wing with the apex acute, the inner margin arched, vein 11 not anastomosing with 12 male with a small arcole, the fringe of scales extending to half the length of cell and a streak of small modified scales to its extremity

1335 Prabhasa fuscistriga, n sp

of Head and thorax brown, abdomen ochreous Fore wing ochreous, thickly irrorated with brown scales, the modified scales filling the outer half of cell smoky black Hind wing ochreous

Hab Bernardmyo, Burma, 6000 feet (Doherty) Exp 30 millim Type in coll Elwes

- SECT IV (Zadadia) Fore wing of male with the inner margin highly arched and fringed with hair at base, vein 1 b curved, the cell narrow, with a fringe of long scales from the subcostal and from end of median nervure, veins 2 to 11 all given off near end of cell, vein 11 being remote from 12, an areole present
- 1336 Prabhasa distorta, Moore, P Z S 1872, p 572, 1878, pl 2, fig 15, C & S no 620
 - d Head orange-yellow, thorax brown, abdomen fuscous, with

the anal tuft ochreous. Fore wing leaden grey, a blackish postmedial spot on the costa and traces of a postmedial band, the inner margin pale Hind wing yellowish grey

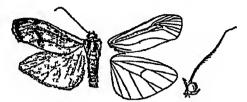


Fig 44 -Prabhasa distorta, d. 1

Q Head whitish, fore wing with pale streaks in the marginal interspaces, the costa whitish, the postmedial spot large and the band more distinct. Hind wing yellowish white.

Hab Sikhim, Nága Hills. Exp. 55 millim

Genus LOPHONEURA, nov.

Type, L uniformis, Hmpsn.

Range Burma

Palpi short and porrect Antennæ with the cilia and bristles long. Fore wing long and narrow, a fan of long scales from the median nervure at middle of cell, which is long and narrow, veins 3 and 4 stalked, 5 absent, 6 from below angle of cell, 7 and 10 from angle, 8 and 9 stalked, 11 not anastomosing with 12. Hind wing with veins 3 and 4 stalked, 5 absent, 7 from before angle of cell, 8 from middle of cell.

1337 Lophoneura uniformis, n sp

d Uniform pale ochreous, the fan of scales on fore wing slightly brighter in colour



Fig 45 -Lophoneura uniformis, of

Hab. Tenasserim Valley (Doherty). Exp 26 millim Type in coll Druce

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Genus LITHOSIA.

Lithosia, Fabr Ent Syst Suppl p 459 (1798)
Systropha, Hubn Verz p 165 (1818)
Eilema, Hubn Verz p 165
Manulea, Wallengr Wien ent Monats vii, p 145 (1863)
Cossa, Will Cat vixii, p 232 (1865)
Gandhara, Moore, P Z S 1878, p 15
Collita, Moore, P Z S 1878, p 16
Katha, Moore, P Z S 1878, p 16
Dolgoma, Moore, P Z S 1878, p 16
Dolgoma, Moore, P Z S 1878, p 15
Capissa, Moore, P Z S 1878, p 15
Capissa, Moore, P Z S 1878, p 19
Tarika, Moore, P Z S 1878, p 19
Tarika, Moore, P Z S 1878, p 14
Macotasa, Moore, P Z S 1878, p 24

Type, L complana, Linn, from Europe Range Universally distributed

Palpi short and porrect, antennæ ciliated Fore wing with the cell shorter and broader, vein 2 from beyond the middle, 3 and 4 stalked, 5 absent, 6 from below angle, from angle, or beyond it, 9 arising from 10 and forming an areole or stalked with 7 and 8, 11 free or anastomosing with 12 Hind wing with veins 3, 4 and 6, 7 stalked, 5 absent, 8 from middle of cell

SECT I Fore wing with vein 9 anastomosing with 8 to form an areole

1338 Lithosia varana, Moore, P Z S 1865, p 797, C & S no 577

Head, thorax, and abdomen white, the last with the terminal segments yellow Wings white with a fleshy tinge Underside of fore wing wholly suffused with fuscous except the margins

1339 Lithosia nivea, Moore, P Z S 1878, p 15, C & S no 576

Differs from varana in the head, collar, and base of tegulæ being pale yellow Wings pure white, the costa of fore wing narrowly yellow

Hab Sikhim Eap, & 38, Q 40 millim

Hab Sikhim Evp 38 millim

- 1340 Lithosia calamaria, Moore, P Z S 1878, p 18, C & S no 585 Systropha dorsalis, Moore, P Z S 1878, p 18, C & S no 587
- of Uniform ochreous Underside with the whole fore wing, except the margins and apex of hind wing, suffused with fuscous Hab N W Himalayas, Sikhim Erp 32 millim
- 1341 Lithosia antica, Wlk Cat ii, p 505, Moore, Lep Ceyl ii, pl 101, fig 3, C & S no 624
 Lithosia nataia, Moore, Cat E I Co p 304
 Lithosia saiawaca, Butl Trans Ent Soc 1877, p 350

Head, collar, and base of tegulæ yellow, thorax leaden grey, abdomen fuscous suffused with yellow. Fore wing leaden grey a yellow stripe along the costa reaching the apex, the cilia yellow



Fig 46 -Lithosia antica, &

Hind wing yellow Underside uniformly suffused with yellow, some specimens with the fore wing leaden grey, the costa only yellow

Differs from complana in wanting the broad yellow inarginal

band of fore wing on underside

Hab Sikhim Khásis, Ceylon, Nicobais, Borneo, Java Eup 24-33 millim

SECT II Fore wing with vein 9 stalked with 7 and 8

A. For e wing with the outer margin of moderate length

a Male without secondary scrual characters on the fore wing

1342 Lithosia fumidisca, n sp

Q Differs from antica in the thorax and fore wing being much darker fuscous brown, the latter with the outer margin as well as the costa and cilia yellow. Hind wing orange-yellow. Underside of fore wing fuscous, the costa and outer margin vellow.

Hab Sikhim (Moller), Tenasserim Valley (Doherty) Evp 24

millim Type in coll Druce

- 1343 Lithosia griseola, Hubn Lur Schmett 11, fig 97
 Lithosia serva, Will Cat 11, p 506, Moore, P Z S 1878,
 p 15, pl 1, fig 7, C & S no 613
 Lithosia adaucta, Bull A M N H (4) xx, 1877, p 398
 Lithosia ægrota, Bull A M N H (4) xx, 1877, p 397
 Collita lilacina, Moore, P Z S 1878, p 16, C & S no 578
- of Differs from antica in being paler Fore wing broader, pale grey with the costal stripe narrow Hind wing yellowish white Underside grey, the costa of fore wing yellowish Hab Europe, Japan, Nepal, Sikhim Erp 34 millim

1344 Lithosia fuscicilia, n sp

Differs from antica in the thorax being dark leaden grey, the collar and tegulæ with a narrow yellow band. Fore wing

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broad, dark leaden grey, the costal stripe very narrow, cilia leaden grey and silvery grey at tips. Hind wing darker yellow, the veins fuscous. Underside of fore wing leaden grey, with a diffused yellow costal band.

Hab Sikhim (Elwes), Manipur, Burma (Doherty) Exp

38 millim Type in coll Elues

1345 Lithosia prabana, Moore, Cat L I Co p 304 Collita parva, Moore, P Z S 1878, p 16, pl 1, fig 13, C § S no 579

Thorax, abdomen, and wings smoky black, the head, collai, anal tufts, and costa and cilia of fore wing yellow

Hab Sikhim, E Pegu, Sumatia, Java Eip & 20, Q 25 millim

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- 1346 Lithosia chota, Swinh P Z S 1885, p 293, pl 20, fig 11, C & S no 625
- Q Uniform brownish fuscous, fore wing with a slight glossy tone

Hab Poona Exp 18 millim

- 1347 Lithosia biunnea, Moore, P Z S 1878, p 20, pl 2, fig 8, C & S no 596
- 2 Head, thorax, and fore wing uniform dark brown, abdomen and hind wing fuscous

Hab Sikhim Erp 27 millim

- 1348 Lithosia auriffua, Moore, P Z S 1878, p 18, pl 2, fig 7, C & S no 586
- of Pale straw-yellow, the hind wing slightly paler. The cell of the fore wing is very narrow especially towards the base, and the veins are bent up towards the costa veins 3 and 4 of fore wing and 3, 4 and 6, 7 of hind wing are on very long stalks

Hab Kulu, Manipur Eip 30 millim

1349 Lithosia microxantha, n sp

Head, thorax, and abdomen orange-yellow Fore wing deep

orange-yellow, hind wing paler

Differs from simpler, Wik =decreta, Butl, from Borneo, in the fore wing being considerably broader and more rounded at apex Hab E Pegu (Doherty) Erp, 3 20, 2 23 millim Type in

coll Elwes

- 1350 Lithosia nigripars, Will Cat vii, p 1779, C & S no 592
- Q 'Head and thorax yellowish white, abdomen fuscous, clothed with white hairs, the extremity ochreous Fore wing yellowish white, irrorated with a few fuscous scales, the costa, outer margin, and base of cilia orange-yellow Hind wing dirty white, the outer margin tinged with yellow Underside suffused with fuscous.

Hab Sikhim Erp 34 millim.

*1351 Lithosia? colon, Moschler, Stettin Ent Zeit 1872, p 353, C & S no 617

Head and tegulæ straw-yellow, thorax grey with a lilac tinge, abdomen with grey bairs on the back, the extremity yellow, legs yellow, banded with grey, tarsi grey. Fore wing reddish grey, the base and costa tinged with golden yellow, a prominent black medial spot on the costa, and another on vein 2, cilia yellow. Hind wing yellow. Underside of fore wing with broad yellow edges and showing the spots of upperside.

Hab Silhet Exp 39 millim

- 1352 Lithosia reticulata, Moore, P Z S 1865, p 798, C & S no 598
- Q Head and thorax pale brown, a dark speck at end of tegulæ, abdomen fuscous, the extremity ochreous Fore wing pale brown, rrorated with fuscous scales, a diffused angulate dark brown medial band Hind wing ochreous

Hab Sikhim Exp 34 millim

- 1353 Lithosia cubitifera, n sp
- Q Differs from reticulata in being slightly irrorated with fuscous, the postmedial band doubly curved, the upper part incurved, the lower excurved in the interno-median interspace

One specimen is much more suffused with fuscous than the

other

- Hab. Nága Hills, 3000 feet (Doherty) Exp 20-23 millim. Type in coll Elwes
- 1354 Inthosia angulifera, Feld Reis Nov pl 106, fig 12, C & S
- Q Differs from reticulata in the head, thorax, and fore wing being bright ochreous, without fuscous irroration. Hind wing pale yellow

Hab Sikhim, Nilgiris, Ceylon Exp 29 millim

1355 Lithosia obliterans, Feld Verh zool-bot Ges Wien, 1868, p 285, C & S no 597

Differs from reticulata in the head, thorax, and fore wing being purplish grey without fuscous suffusion. Fore wing with the angulate band more prominent and less diffused. Hind wing pale ochreous with a fuscous tinge.

Hab Ceylon Exp 30 millim

- 1356 Lithosia brevipennis, Will Cat 11, p 509, Hmpsn Ill Het viii, pl 139, figs 2, 11, C & S no 580
- J. Head yellowish, thorax and fore wing uniform yellowish brown, abdoinen and hind wing pale yellow

 \mathcal{P} bright yellow, abdomen and hind wing paler Hab Nilgiris, Ceylon Eip, σ 28, \mathcal{P} 30 millim

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1357 Lithosia punctifera, Hmp = Ni Het ix, p 80, pl 158, figs 21-23 Systropha fuscipes, Hmp = Ni Het ix, p 80 (2)

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- d Differs from brempennis in the fore wing having a dark spot at end of cell
 - 2 smaller and paler than that sex of brevipennis Hab Ceylon Exp 20 millim
- 1358 Lithosia conformis, W7% Cat 11 p 509, C & S no 61
- Online from brempenns in having the head black, the abdomen tuscous Fore wing broader and brownish yellow
 Hab N India Exp 36 millim
- 1359 Lithosia basigera, Will Cat xxxi, p 233, Hmpsn Ill Het viii, pl 143, tig 1, C & S no 600 Cossa ruma Swinh P Z S 1889, p 403, Hmpsn Ill Het vii pl 143, tig 8
- of Frons orange, head and thorax dark fuscous, abdomen fuscous, the extremity ochreous Fore wing fuscous, the costa orange, a basal fuscous patch on a white fascia on basal half of costa, an indistinct fuscous medial band angled inwards, a very indistinct waved postmedial line Hind wing yellow with an orange tinge

2 with the costal patch of the fore wing joined to the angulate

medial band

Hab Mahableshwar, Nilgiris Erp, 330-38, 234-44 millim

- 1360 Inthosia pallida, Moore, P Z S 1878, p 21, C & S no 605
- d Head, thorax, and abdomen pale brown Fore wing pale brown black antemedial and medial patches on the costa, a speck at lower angle of cell, another below the cell on vein 1, faint traces of a submarginal band Hind wing pale ochreous, with traces of a submarginal band

2 with the antemedial patch on costs of fore wing obsolescent

Hab Kángra Exp, 332, 2 36 millim

- 1361 Lithosia nebecula, Moore, P Z S 1879, p 394, C & S no 603
- 9 Differs from pallida in the thorax and abdomen being blackish. Wings duller grey, fore wing with one postmedial black spot on the costa, the apex and parts of marginal area suffused with black.

Hab Andamons Exp 31 millim

1362 Lithosia quadrisignata Moore, P Z S 1878, p 21, pl 2, fig 10, C & S no 604

Herd collar, and abdomen pale brown, thorax darker Fore wing pale brown with autemedial and medial oblique black streaks from the costa, a dark streak below median nervure and another

on inner margin, a small spot at end of cell, and ill-defined sub-marginal and marginal bands

Hab Sikhim Erp 32 millim

- b (Macotasa) Fore wing of male with a fringe of long scales in the basal half of cell, which is very narrow, veins 3 and 4 bent downwards, vein 2 anastomosing with 3
- 1363 Lithosia toi tricoides, Wik Journ Lann Soc vi, p 107 Teulisna biplagella, Butl Trans Ent Soc 1877, p 355 Macotasa biplagella, Moore, P Z S 1878, p 25, pl 2, fig 14
- d Head pale ochreous, thorax brown, abdomen fuscous, with the anal tuft ochreous. Fore wing yellowish fuscous, the costa whitish, with a large black patch at centre. Hind wing with the base yellowish, the outer area fuscous

2 with the costal black spot of fore wing smaller and further

from the base, the costa black at apex

Hab Sikhim, Nilgiris, Borneo, Java Erp 30 millim

B Fore wing narrow, with the outer margin shorter

- a Male without patches of modified scales on for e and hind uings
- 1364 Lathosia intermixta, W7L Cat xxxi, p 229, Hmpsn Ill Het ix, pl 158, fig 1, C & S no 582
- d Head, thorax, and fore wing uniform brownish yellow, abdomen and hind wing pale yellow

Hab Nilgiris, Ceylon, Andamans. Exp, ♂ 25-28, ♀ 22

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1365 Lithosia nigrifrons, Moore, P Z S 1872, p 572, C & S no 583 Lithosia lævis, Butl A M N H (4) xx, 1877, p 398

Frons fuscous, head, collar, and tegulæ orange-yellow, thorax and basal segments of abdomen whitish, the terminal segments orange. Fore wing fleshy white, the apex and cilia orange-yellow. Hind wing white, the outer area pale yellow.

The form lævis from Japan has the underside of the fore wing

slightly suffused with fuscous

Hab Japan, Kangra, Sikhim, Nagas Eap 38 millim

- 1366 Lathosia cucullata, Moore, P Z S 1878, p 17, C & S no 581
- d Head and thorax black, abdomen grey at base, orange-yellow towards extremity. Fore wing flesh-colour, the outer margin suffused with fuscous, costa at apex and cilia yellow. Hind wing flesh-colour with a yellow tinge

Hub Andamans Evp 28 millim

1367 Lithosia euchana, Swinh A M N H (6) xii, p 216

Greyish white, head and vertex of thorax orange, collar, tegulæ, and metathorax spotted with black, abdomen orange

LITHOSIA 85

towards extremity, fore wing with postmedial dark spots above veins 2 and 4, outer margin of both wings orange

Hab Shan States Exp, ♂ 44, ♀ 52 millim

1368 Lithosia terminalis, Maore, P Z S 1878, p 17, pl 1, fig 14, C & S no 584
Katha ^o semifusca, Elw P Z S 1890, p 388, pl 32, fig 9

of Head and thorax black, collar grey, tegulæ fringed with grey, abdomen grey, the terminal segments ochieous Fore wing yellowish grey, with a broad black submarginal band Hind wing pale yellow

In the form semifusca the black submarginal band extends in-

wards to the end of the cell

Hab Sikhim Erp 34 millim

- 1369 Inthosia fasciata, Moore, P Z S 1878, p 20, pl 2, fig 4 C & S no 589
- d Head, thorax, and fore wing bright orange-yellow Fore wing with the inner area suffused with brown scales from the base to near outer margin. Abdomen and hind wing paler

Hab Ceylon Erp 31 millim

- 1370 Lathosia pallens, Moore, P Z S 1878, p 19, pl 2, fig 3, C & S no 593
- of Head and thorax bright ochreous. Fore wing glossy yellowish white, the costa blackish at base, the outer margin yellow. Hind wing pale ochreous. Underside of fore wing suffused with fuscous, except the marginal area.

 $\mathcal Q$ uniformly paler, the head and thorax yellowish white Hab Kángra, Kurseong, Sikhim Evp, $\mathcal G$ 40, $\mathcal Q$ 42 millim

- b (Capissa) Fore wing of male with a fold and streak of modified scales along median nervine and vein 2. Hind wing with a patch of modified scales covering the whole disk
- 1371 Lithosia vagesa, Moore, Lep E I Co p 304, C & S no 594
 Lithosia innotata, Butl Trans Ent Soc 1877, p 352, Moore,
 P Z S 1878, pl 2, fig 2, C & S no 591
 Capissa auriflava, Moore, P Z S 1878, p 19, C & S no 588
 Capissa flavens, Moore, P Z S 1878, p 20, C & S no 590

Uniform bright ochreous, the extremity of abdomen orange of with the patches of modified scales on fore and hind wing

orange
The form innotata=auriflava from the NW Himalayas and
Nepal has the legs banded with black, in the Eastern form vagesa
they are wholly black

Hab NW Himalayas, Nepal, Sikhim, Khásis Exp 43

mıllım

86 ARCTIDÆ

Genus MITHUNA.

Mithuna, Moore, P Z S 1878, p 21

Type, M quadriplaga, Moore

Range Sikhim

Palpi short and porrect Antennæ minutely ciliated in male Fore wing long, the outer margin elect, veins 3 and 4 on a long stalk, 5 absent, 6 from angle of cell, 7, 8, 9, 10 stalked, 11 anastomosing with 12 Hind wing with veins 3 and 4 on a long stalk, 5 absent, 6 and 7 stalked, 8 from centre of cell

1372 Mithuna quadriplaga, Moore, P Z S 1878, p 21, pl 2, fig 9, C & S no 599

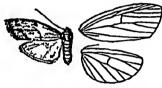


Fig 47—Mithuna quadriplaga, Q +

Q Head, thorax, and fore wing yellowish brown, irrorated with fuscous, fore wing with an indistinct medial fuscous band, angled at lower extremity of cell, a similar submarginal nearly straight band. Abdomen and hind wing pale fuscous

Hab Sikhim Erp 26 millim

Genus TEULISNA.

Teulisna, Wik Jouin Linn Soc vi, p 109 (1862) Corcura, Wik Jouin Linn Soc vi, p 110 Tegulata, Wik Journ Linn Soc vi, p 110 Ityca, Wik Cat axxv, p 1889 (1866)

Type, T plagiata, Wlk, from Borneo
Range Ceylon, Nilgiris, Sikhim, Assam, Burma, Malacca,
Borneo, Java

Palpi short, porrect, and clothed with long hair Antennæ of male with the cilia and bristles short. Fore wing triangular, with the apex acute, the outer margin nearly erect, a fringe of long scales in the basal part of the cell on the upperside, veins 3 and 4 stalked, 5 absent, 6, 7, 8, 9 stalked, 10 from cell, no areole, 11 anastomosing with 12 male with the median nervure bent, the outer part of the cell narrow, and the neuration somewhat distorted. Hind wing with veins 3, 4 and 6, 7 stalked, 5 absent, 8 from middle of cell male with a patch of modified scales at base of median nervure, the cell short and discocellulars oblique

SECT I Fore wing with the costal lobe present in both sexes

- Teulisna tumida, Wik Jouin Linn Soc vi, p 110
 Tegulata basistriga, Moore, P Z S 1878, p 22, pl 2, fig 5,
 C δ S no 607
 Ity ca humeralis, Wik Cat xxxv, p 1890
 - d Head, thorax, and basal segments of abdomen pale brown,

the terminal segments black



Fig 48 — Teulisna tumida, 3

Fore wing pale brown, with a purplish tinge and suffused with fuscous, a black streak on the base of costa, and a large black spot at end of cell Hind wing yellowish, suffused with fuscous towards

outer margin

2 with the abdomen fuscous, the anal tuft ochreous.

fore wing with the black spot at end of cell reduced to a minute speck

Hab Ceylon, Malacca, Borneo Esp 28 millim

1374 Teulisna protuberans, Moore, P Z S 1878, p 23, pl 2, fig 6, C S S no 608

Q Differs from tumida in the fore wing being without the basal streak on the costa, the lobe further from the base, with a large black spot on the costa just before it, a black speck at end of cell Hind wing yellow

Hab Sikhim Exp 32 millim

1375 Teulisna obliquistria, n sp

d Differs from tumida in the terminal segments of the abdomen being fuscous. Fore wing slightly irrolated with fuscous, the subbasal costal patch fuscous the spot at end of cell minute and nearly joined to an oblique stria from the costa. Hind wing uniform brownish ochreous

Proceiving with a narrow costal streak, no oblique streak, a black streak along middle of inner margin, outer area of hind wing suffused with fuscous

Hub Sikhim (Moller), Momeit, Burma (Doherty) Erp 28

millim Type in coll Elwes

SECT II Fore wing with the costal lobe absent

1376 Teulisna inducta, W/L Cat xxxi, p 232, Hmpsn Ill Het viii, pl 143, fig 15, C & S no 602

d. Differs from tumida in the frons being ochreous, head, thorax, and abdomen fuscous, the last with the extremity blackish Fore wing narrower, fuscous, the basal costal patch large and dark fuscous, the fringe of scales below it and a patch on costa beyond it white, traces of darker medial and postmedial diffused bands. Hind wing uniform pale yellow

2 with the fore wing uniform fuscous, except a whitish streak

below the costa and dark speck at end of cell

Hab Nilgui plateau Éip, ♂ 30, ♀ 30-42 millim

1377 Teulisna uniplaga, n sp

9 Frons black Head, collar, and tegulæ yellowish white, thorax black, abdomen fuscous, with the extremity ochreous Fore wing whitish, suffused with fuscous, a blackish speck above inner margin near the base, a large quadrate black medial patch from upper part of cell to inner margin, its angle towards the apex excised, a postmedial black speck on the costa. Hind wing uniform fuscous

Hab Margharita, Assam, E Pegu, Tenasserim Valley (Doherty)

Exp 25 millim Type in coll Druce

Genus NISHADA

Nishada, Moore, P Z S 1878, p 23

Type, N flabrifera, Moore

Range Calcutta, Ceylon, Burma, Sumatra, Borneo Palpi short and porrect, the second joint fringed with long Antennæ of male with cilia and bristles, the upper surface covered with rough scales Fore wing broad, the costa much arched, a large smooth patch on the inner area of underside for the articulation of the hind wing, vein 5 absent, 7, 8, 9 stalked, 11 anastomosing with 12 Hind wing of male with a costal fold, from which projects a fringe of large scales, vein 4 absent, female with veins 3, 4 and 6, 7 stalked, 5 absent, 8 from middle of cell

- SECT I Male with the basal half of antennæ not thickened wing with veins 3 and 4 from cell, 6 from below the angle, 10 absent Hind wing with vein 6 absent
- 1378 Nishada flabrifera, Moore, P Z S 1878, p 23, C & S n 609
- d Head smoky black, thorax yellowish brown, abdomen ochreous, the second segment almost bare of scales and showing the dark cuticle Fore wing uniform yellowish brown wing ochreous

Hab Calcutta, Ceylon Exp 30 millim

- SECT II Male with the basal half of antennæ thickened wing with veins 3 and 4 stalked, 6 from angle of cell, 10 present Hind wing with veins 6 and 7 stalked, or 6 absent
- 1379 Nishada rotundipennis, Wik Journ Linn Soc vi, p 104 Lithosia nodicornis, Wik Journ Linn Soc vi, p 104 Lithosia chilomorpha, Snell Tild v Ent ax, p 67, pl 5, fig 1
- d. Differs from flabrifera in the vertex of head being yellowbrown Underside of fore wing with a black band along the apical half of outer margin

2 with the frons yellow and the second segment of abdomen clothed with scales

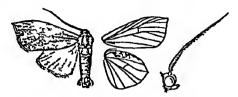


Fig 49 -Nishada rotundipennis, &

The Burmese male has the second segment of abdomen clothed with scales

Hab E Pegu, Sumatra; Borneo Exp 26-34 millim

Genus GAMPOLA.

Gampola, Moore, P Z S 1878, p 26

Type, G fusciata, Moore Range Ceylon

Palpi short, porrect, and clothed with long hair Antennæ with the cilia and bristles long Mid tibie with one pair of spurs, hind tibiæ with two pairs Tegulæ of male fringed with long hair Fore wing broad and much distorted, the apex folded over, a fringe of long scales on the upperside from the basal part of the costa, the inner margin distorted and fringed with long scales towards outer angle, the cell narrow and occupying the centre of the wing, vein 1b reaching inner margin before the angle, 3 and 4 from the cell, 5 absent, 6 from below the angle, 7, 8, 9 stalked, 11 anastomosing with 12 Hind wing broad and much distorted, the cell broad and long, veins 4 and 5 absent, 6 and 7 from the upper angle

I with the wings of normal shape, fore wing with veins 3 and 4 stalked, 5 absent, 6 from below angle of cell, 7, 8, 9 stalked. 11 anastomosing with 12 Hind wing with veins 4 and 5 absent,

6 and 7 stalked

1380 Gampola fasciata, Moore, P Z S 1878. p 27, pl 2, fig 18, C & S no 623



Fig 50 — Gampela fasciata, &

of Brownish fuscous, the anal tuft ochreous, the costs and apex of fore wing ochreous, hind wing pale

90 ARCTIDÆ

Q with an indistinct angled fuscous band just beyond the middle of fore wing, some dark marks on outer margin Hab. Ceylon Exp, 5 28, Q 34 millim

1381 Gampola binotata, Hmpsn Ill Het ix, p 81, pl 158, fig 24

Q Head, thorax, and abdomen pale fuscous, the anal tuft ochreous Fore wing pale fuscous, irrolated with brown scales, a dark spot at end of cell, and another below vein 2 Hind wing paler

Hab Ceylon Exp 18 millim

Genus SIMAREEA.

Simareea, Moore, P Z S 1878, p 14

Type, S basinota, Moore

Range Himalayas

Palpi upturned, reaching vertex of head Antennæ with the cilia and bristles long. Fore wing with veins 3 and 4 from angle of cell, 5 absent, 6 from upper angle, 7 and 10 from areole or 7 from beyond it, 11 anastomosing with 12. Hind wing with veins 3, 4 and 6, 7 stalked, 5 absent, 8 from before middle of cell.

1382 Simareea basinota, Moore, P Z S 1865, p 798, 1878, pl 1, fig 16, C & S no 614
Simareea lunda, Butl Ill Het vii, p 34, pl 122, fig 10

Head, thorax, and fore wing dark hair-brown, irrorated with pale brown hairs and scales, fore wing with a pale spot at base of inner margin. Hind wing pale fuscous, the outer margin darker

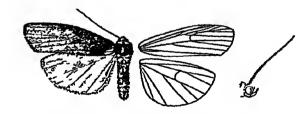


Fig 51 - Simareea basinota, & }

Abdomen pale fuscous, the terminal segments yellow Underside of fore wing with a fulvous streak in the cell

The form lurida from Kangra has the hind wing paler, with a

fulvous patch below the costa on upperside

Hab Kangra, Sikhim Erp 48-52 millim

Genus HEMONIA.

Hemoma, Wlk Cat xxviii, p 425 (1863)

Type, H orbiferana, Wlk Range Ceylon, Borneo

Palpi slight and porrect, antennæ ciliated in male Fore wing very broad and rounded, vein 3 from before angle of cell, 4 and 5 stalked, 6 and 7 stalked, 8, 9, 10, 11 nearly erect, 11 anastomosing with 12 Hind wing with veins 4 and 5 stalked, 3 absent, 6 and 7 stalked, 8 from near end of cell

1383 Hemonia orbiferana, Wik Cat xxviii, p 426 Pitane rotundata, Snell Tyd v Ent 1879, p 90, pl 10, fig 6

Head, thorax, and fore wing dark purplish grey, the last with a fulvous speck on an ochreous ground at end of cell, a dark line



Fig 52—Hemonia ordiferana, d }

from the centre of costa to near apex, then curved round to outer angle Abdomen and hind wing pale fuscous, in Bornean specimens white

Hab Ceylon, Borneo Exp 17-24 millim

Genus ÆMENE

Æmene, Will Cat 11, p 541 (1854)
Panassa, Will Cat 1111, p 607 (1865)
Autoceras, Feld Reis Nov pl 106, fig 24 (1875)

Type, Æ taprobanis, Wlk

Range Japan, throughout India and Ceylon

Palpi porrect, reaching beyond the frons Antennæ serrate in male, cliated in female Fore wing short, vein 3 from before angle of cell, 4 and 5 from close to angle, 6 from below upper angle, 7, 8, 9 stalked. Hind wing with veins 4 and 5 from close to the angle, 3 absent, 6 and 7 stalked, 8 from middle of cell

SECT I Fore wing broad, the apex rounded

1384 Æmene grisea, Hmpsn Ill Het ix, p 81, pl 158, fig 2

of Silvery grey Fore wing with an indistinct nearly straight erect medial line, a prominent black speck at end of cell, an indistinct postmedial line excurved round end of cell, three black specks on the margin below the apex and one at outer angle

Hab Ceylon Exp 14 millim

1385 Æmene taprobanis, Wik Cat 11, p 542, Moore, Lep Ceyl 11, pl 104, fig 2, C & S no 715
Panassa cingalesa, Wik Cat xxxii, p 607
Autoceras grammophora, Feld Reis Nov pl 106, fig 24
Æmene subcinerea, Moore, P Z S 1878, p 34, C & S no 714
Æmene sordida, Butl Trans Ent Soc 1877, p 372, C & S no 713
Æmene guinguefascia, Hunsa Ill Het vill p 52, pl 140, fig 15

Æmene quinquefascia, Hmpsn Ill Het viii, p 52, pl 140, fig 15 Æmene sinuata, Moore, P.Z S 1878, p 34, pl 3, fig 11, C & S no 712

Head and thorax grey, tegulæ usually with a black speck Fore wing grey, more or less suffused with fuscous, waved subbasal, antemedial, medial, and postmedial black lines, the last excurved round the end of the cell, then bent inwards to near the

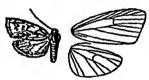


Fig 53
Emene taprobanis, & }

medial band and with some diffused streaks beyond it, a series of marginal specks, a black spot at centre of cell and another at end of it Hind wing pale, more or less suffused with fuscous

The form soi dida is brownish with a very slight fuscous tinge, the hind wing almost pure white, quinquefascia from the Nilgiris is a very dark form, the

body and wings much suffused with fuscous, the fore wing with the streaks beyond the postmedial line forming a connected band Some specimens from Sikhim have the markings of fore wing fuscous instead of black

Hab Kángra, Sikhim, Nágas, Nilgilis, Ceylon Erp, & 18-24, 9 24-30 millim

1386 Æmene maculifascia, Moore, P Z S 1878, p 33, pl 3, fig 10, C & S no 711

J Differs from tap obans in the ground-colour of head, thorax, and fore wing being pure white Fore wing with a broad fuscous band inside the postmedial curved line, the submarginal series of specks straighter and starting from a dark blotch on the costa before the apex Hind wing with traces of a speck at end of cell and postmedial line

Hab Sikhim. Exp. 16 millim

1387 Æmene guttulosana, Wik Cut xxviii, p 429, Moore, Lep Ceyl 11, pl. 104, fig 3, C & S no 710

Differs from taprobans in the ground-colour being clear ochreous without fuscous suffusion, the lines of the fore wing broken up into small spots

Hab Bengal, Nilgiris, Ceylon Exp, & 18, 2 20 millim

 Head and thorax greyish fuscous Fore wing grey, irrorated with black scales, a black basal patch on the costa, antemedial and medial costal spots, a spot at centre of cell and another at end of it, a patch on costa before the apex, traces of antemedial, medial, and postmedial waved lines, a marginal series of black specks Abdomen and hind wing pale fuscous

The form nilgirica from the plateau has the markings of fore wing reduced, whilst cinereicolor from the lower slopes has them

large and prominent

Hab Nilgiris Exp 19 millim.

1389 Æmene tenebrosa, Moore, P Z S 1878, p 34, C & S no 716

Head, thorax, and fore wing dark fuscous powdered with grey. Fore wing with indistinct subbasal, antemedial, medial, postmedial, and submarginal maculate bands, dark spots at middle and end of cell Abdomen and hind wing paler

Hab Bombay, Mhow Eip, ♂ 18, ♀ 20 millim

1390. Æmene multipuncta, Hmpsn Ill Het 1x, p 81, pl 158, fig 3

Head and collar grey, thorax and abdomen fuscous Fore wing whitish grey, two subbasal black specks, a diffused medial band broken at middle, two black specks at end of cell, a submarginal curved series of specks and marginal series, a fuscous patch on costa before the apex Hind wing fuscous

Hab Ceylon Exp 18 millim

SECT II Fore wing narrower, the apex more acute

1391 Æmene sagittifera, Moore, P Z S 1888, p 392, Butl Ill Het vu, pl 122, fig 12

Head and thorax white Fore wing white, two black spots at base, one on costa, the other on vein 1, antemedial, medial, postmedial, and marginal series of black specks, a black streak at end of cell with one above it on costa, a black streak at end of cell, and patch on costa before the apex Abdomen and hind wing pale fuscous

Hab Kángra, Sikhim Exp 20 millim

Genus COSTARCHA

Costarcha, Hmpsn Ill Het viii, p 53 (1891)

Type, C indistincta, Hmpsn.

Range Nilgiris

Palpi minute and porrect Antennæ of male bipectinate, the branches short Tibiæ with the spurs long Fore wing with the costa highly arched, the outer margin straight, veins 4 and 5 from angle of cell, 6 absent, 7, 8, 9 stalked Hind wing with veins 4 and 5 from angle of cell, 3 and 6 absent, 8 from middle of cell

1392 Costarcha indistincta, Hmpsn Ill Het viii, p 53, pl 140, fig 22

oblique indistinct antemedial, medial, postmedial, and subapical

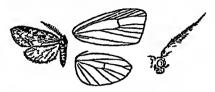


Fig 54 - Costai cha indistincta, & +

strige from the costa, an indistinct submarginal line, a marginal series of specks

Hab Nilgiris Eap 25 millim

Genus OXACME, nov

Type, O dissimilis, Hmpsn

Range Sikhim

Palpi minute and porrect, antennæ simple Fore wing with the costa straight to the end of vein 12, then truncate and produced to a point at veins 7 and 8, outer margin produced to a point at veins 4 and 5, then excised to outer angle, vein 2 curved, 3, 4, 5 from near angle of cell, 6 from upper angle, 7, 8, 9 stalked Hind wing slightly angled at veins 3 and 4, vein 5 absent, 6 and 7 on a long stalk, 8 from beyond middle of cell

1393 Oxacme dissimilis, n sp

P Head, thorax, and abdomen fuscous, anal tuft ochreous



Fig 55 Oxacme dissimilis, P

Fore wing fuscous, two black spots on the costa before middle, an indistinct obliquely curved line arising from the outer spot, a broad diffused medial dark band, a postmedial curved series of black specks starting from a somewhat prominent spot on the costa, a series of short black lines on the outer maigin. Hind wing pale fuscous, the apex somewhat darker

Hab Sikhim Erp 18 millim Type in coll Elwes

Genus UTRICULIFERA

Utriculofera, Hmpsn Ill Het ix, p 81

Type, U fuscapea, Hmpsn

Range Ceylon

Palpi porrect and reaching beyond the frontal tuft Antennæ of male with a very large hollowed-out vesicle after the basal joint,

the terminal portion chiated, the abdomen with a pair of lateral tufts of long hair from the third segment. Tibus with the spurs long. For wing with the costa arched near the base, the outer margin straight, the inner margin of male with a basal fold containing tufts of hair, vein 3 from before angle of cell, 4 and 5 from close to angle, 6 from below upper angle, 7, 8, 9 stalked Hind wing with vein 4 from angle of cell, 5 from above angle, 3 absent, 6 and 7 stalked, 8 from near end of cell

1394 Utriculifera fuscapex, Hmpsn Ill Het ix, p 82, pl 158, figs 7, 17

Brownish grey Fore wing with the costa dark in parts, the

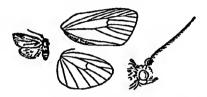


Fig 56 — Utriculifera fuscapex, 3 }

inner basal area suffused with brown, two dark specks beyond the cell, the apex suffused with fuscous

Hab Nawala-pittia, Ceylon Erp 16 millim

Genus NARASODES

Narasodes, Moore, Lep Ccyl III, p 535 (1887)

Type, N punctana, Wlk

Range Ceylon

Palpi slender, porrect, and reaching beyond the frontal tuft Antennæ minutely ciliated in male. Fore wing with a slight raised tuft of scales in the cell, veins 3, 4, 5 from angle of cell; 6 absent, 7 and 8 stalked, 9 and 10 free. Hind wing with vein 4 from angle of cell, 5 from above the angle, 3 absent, 6 and 7 stalked, 8 from middle of cell.

1395 Narasodes punctana, Wlh Cat xxviii, p 431, Moore, Lep Ceyl in pl 211, fig 7



Fig 57
Narasodes punctana, 6

6 Head and thorax ochreous Fore wing suffused with reddish brown except the margins, which are ochreous, a raised tuft of dark scales at end of cell, a few scattered black scales near vein 1, some minute black specks at apex Abdomen and hind wing pale fuscous

Hab Ceylon Erp 16 millim

Genus DIDUGA.

Diduga, Moore, Lep Ceyl 111, p 535 (1887) Androstigma, Hmpsn Ill Het 12, p 82 (1893)

Type, D costata, Moore Range Nilgiris, Cevlor

Range Nilgiris, Ceylon
Palpi slender and obliquely porrect Tibiæ with the spurs long
Fore wing with vein 3 from before angle of cell, 4 and 5 from the
angle, 6 from upper angle, 7 and 8 stalked Hind wing with
vein 4 from angle of cell, 5 from above the angle, 3 absent,
6 and 7 stalked Fore wing of male with a costal fold acting
as the retinaculum

SECT I (Diduga) Antennæ of male ciliated Hind wing with no patch of differently-formed scales near anal angle

1396 Diduga fumipennis, Hmpsn Ill Het viii, p 52, pl 140, fig 7.

d Head and collar yellow, thorax and fore wing smoky brown, the latter with the costa blackish and with a yellow spot at centre, cula yellowish towards outer angle. Abdomen and hind wing slightly paler

Hab Nilgiri plateau Exp 19 millim

1397 Diduga costata, Moore, Lep Ceyl 111, p 535
Diduga fulvicosta, Hmpsn Ill Het viii, p 52, pl 140, fig 18

Head, collar, and tegulæ bright yellow, thorax and fore wing dark leaden grey, the latter with the costal area bright yellow



Fig 58 - Diduga costata, 3

arrorated with a few black scales and with its lower edge waved, the costa black near base and with ante- and postmedial black specks, a marginal bright yellow band with a pale waved inner edge, cilia orange-yellow Abdomen and hind wing paler

The form fulvicosta from the

Nilgiris has the marginal band of fore wing reduced to a spot above outer angle

Hab Nilgiri plateau, Ceylon. Exp 16-18 millim

SECT II (Androstigma) Male with the antennæ bipectinated, the branches short Hind wing with a large patch of modified scales near anal angle

1398 Diduga albicosta, *Hmpsn Ill Het* viii, p 53, pl 140, fig 17, Ill Het ix, p 82, pl 158, fig 25

Head, collar, tegulæ, and prothorax white, meso- and metathorax dull leaden grey Fore wing dark leaden grey, a white band on costal area, with a few dark scales on it and its lower edge waved, some white spots on outer margin, either large and conjoined or small and separated Abdomen and hind wing paler, the latter with a large circular patch of modified scales near anal angle

Hab Nilgiri plateau, Ceylon. Exp 14 millim

Genus PSEUDOBLABES

Pseudoblabes, Zell Bull Soc Nat Mosc xxvi, pt 2, p 514 (1853)

Type, P oophora, Zell

Range Assam, Ceylon, Burma

Tibiæ with Palpi slight and porrect Antennæ of male ciliated the spurs long Fore wing broad, the costa highly arched, vein 3 from close to angle of cell, 5 absent, 6 from below upper angle, 7, 8, 9 stalked, 10 absent Hind wing of male with a patch of modified scales on the costal vein, the apex excised veins 3 and 5 absent, the cell open, female with vein 3 absent, 5 from above angle of cell, 6 and 7 stalked, 8 from middle of cell, which is closed Fore wing with a large costal fold in male, small in female

1399 Pseudoblabes oophora, Zell Bull Soc Nat Mosc xxvi, pt 2, 1853, p 514, pl 4, figs 1-6 Conchylis flavicostana, Wlh Cat xxvii, p 361, C & S no 4757

Head and thorax yellowish white Fore wing dark leaden



Fig 59 Pseudoblabes oophora, 3

grey, the basal, costal, and outer areas yellowish white, the costal band expanding into a patch at Hind wing ochreous, the marginal area slightly suffused with fuscous

Q with the hind wing fuscous; the cilia vellow

Hab Assam, Ceylon, Burma. Exp, σ 18, Ω 20 millim

Genus GARUDINIA.

Garudinia, Moore, Lep Ceyl. 11, p 59 (1882)

Type, G latana, Wlk

Range Ceylon, Borneo
Palpi upturned, slender, and not reaching vertex of head
Antennæ minutely ciliated Fore wing narrow, the costa arched, veins 3 and 4 stalked, 5 absent, 6 from below angle of cell, 7 and 8 stalked, 10 absent, male with a patch of modified scales in the cell Hind wing of male excised at apex, vein 6 absent, female with veins 3 and 4 stalked, 5 from above angle of cell, 6 and 7 stalked, 8 from middle of cell Fore wing of male with a large costal fold, female with a small one.

1400. Garudinia latana, W7k Cat xxviii, p 427, Moore, Lep Ceyl ii, pl 103, fig 2, C & S. no 736

a. Head and thorax white, abdomen yellowish white Fore

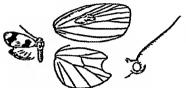


Fig 60 - Garudinia latana, 3

wing white, with a purplish-brown subbasal blotch from the subcostal nervure to inner margin, a submarginal band broad at costa and centre. Hind wing white, the apex suffused with fuscous

Hab Ceylon Eap, o 16, ♀

19 millim

Genus PADENIA

Padenia, Moore, Lep Ceyl 11 p 58 (1882)

Type, P transversa, Wlk

Range Ganjam, Nilgiris, Ceylon, Andamans, Sumatra

Palpi porrect, reaching beyond the frons Antennæ minutely ciliated in both sexes, tibiæ with the spurs long. Fore wing with the costa highly arched male with veins 3 and 4 from far before end of cell, 5 and 6 absent, 7, 8, 9 stalked female with vein 3 from near angle of cell, 4 and 5 stalked, 6 absent. Hind wing of male excised at apex, with a fringe of long hair on apical portion of costa, vein 6 absent female with veins 3 and 4 stalked, 5 from angle of cell, 6 and 7 stalked, 8 from near end of cell. Fore wing of male with a strong costal fold, female with a slight fold

1401 Padenia transversa, Wik Cat ii, p 544, Moore, Lep Ceyl ii, pl 103, fig 1, C & S no 641
Lithosia bilasciata, Feld Reis Nov pl 106, fig 11

Head, thorax, and abdomen yellowish white, suffused with fuscous Fore wing yellowish white, with ante- and postmedial slightly angled fuscous bands. Hind wing yellowish white, with a slight fuscous tinge

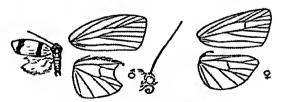


Fig 61 —Padema transversa, & }

Nilgiri specimens have the bands broader than in the Ceylon form, in the Sumatran form the colour is pure white, the bands with a coppery tange

Hab Ganjam, Nilgiris, Ceylon, Andamans, Sumatra Exp.

20 millim

EUGOA. 99

Genus EUGOA.

Eugoa, Wik Cat x11, p 768 (1857)

Type, E aqualis, Wlk, from Borneo

Range Assam, S India and Ceylon, Burma, Borneo

Palpi porrect, reaching beyond the frons Antennæ of male minutely ciliated Fore wing with veins 6, 7 and 8, 9 stalked. Hind wing with veins 6 and 7 stalked, 8 from middle of cell.

SECT I Fore wing with veins 4 and 5 stalked, 11 anastomosing with 12 Hind wing with vein 5 absent

1402 Eugoa bipunctata, Will Journ Linn Soc vi, p 115
Padema trifasciata, Moore, Lep Ceyl 111, p 534, pl 212, fig 14
Padema basipuncta, Hmpsn Ill Het vin, p 49, pl 139, fig 8

Head, thorax, and abdomen greyish or brownish fuscous, thorax spotted with black Fore wing grey, irrorated with fuscous; a



Fig 62 Eugoa bipunctata, 3

black spot at base, a diffused and slightly angled antemedial band, two obliquely placed black spots at end of cell, a curved postmedial line, the area beyond it suffused with fuscous, a highly dentate submarginal line. Hind wing pale ochreous, suffused with fuscous

The Nilgiri form basipuncta is paler

than the Bornean and Assamese form, the Ceylon form trafasciata has the bands of the fore wing narrower

Hab Assam, Nilgiris, Ceylon, Burma, Borneo Exp 26-28

mıllım

SECT II Fore wing with veins 4 and 5 from cell, 11 not anastomosing with 12 Hind wing with veins 4 and 5 stalked

1403 Eugoa strigivenata, n sp

d Head and thorax white, the latter spotted with black Fore wing white, a series of black streaks from the base to the middle with clubbed or forked ends, three black specks in the cell, the veins of the outer area with clubbed or forked streaks ending before the margin Abdomen and hind wing yellow

Hab E Pegu (Doherty) Evp 26 millim Type in coll Elwes.

1404. Eugoa roseivena, n sp

Q Head, thorax, and abdomen crimson Fore wing orange, the veins and margins streaked with crimson, cilia orange Hind wing crimson

Hab Moment, Burma (Doherty) Evp 26 millim Type in coll

Elwes

100 ARCTIDÆ

Genus ANACHROSTIS

Anachrostis, Henpsn. Ill Het ix, p 98 (1893)

Type, A nigripuncia, Hmpsn Range NW Himalayas, Ceylon

Palpi upturned, the second joint reaching vertex of head; antenne minutely cliated Fore wing with vein 5 from angle of cell; 6 from below upper angle, 7 from the angle, 8 and 10 stalked, 9 absent. Hind wing with yeins 3 and 4 stalked, 5 absent

SECT I Palpi with the 3rd joint minute fore wing broad; hind wing with veins 6 and 7 stalked.

1405. Anachrostis nigripuncta, Hmpsn Ill Het 1x, p 98, pl 162, fig 19



Fig 63—Anachrostis nigripuncta, P Q Pale yellowish brown, head yellowish Fore wing with dark undulating ante-and postmedial lines, a black speck on discocellulars, an indistinct diffused waved submarginal line, some pale strige on costa towards apex, a series of black marginal specks Hind wing ochreous, tinged with fuscous

Hab Ceylon Exp 17 millim

SECT. II Palpi with the 3rd joint longer fore wing narrower, hind wing with veins 6 and 7 from cell

1406. Anachrostis bifasciata, n sp

Q Pale yellowish brown Fore wing with a smoky-black diffused antemedial somewhat irregular band, with a black line on its outer edge, a postmedial band broad at the costa and narrowing to inner margin, with a black line on its inner edge, angled outwards at middle, and its outer edge irregular, a marginal series of black specks. Hind wing pale fuseous

Hab. Murree, Simla (Harford) Exp 20 millim Type in B M

- 1407. Anachrostis inconstans, Moore, P Z & 1888, p 893, Bull Ill Het vii, pl 122, fig 11
- 6. Pale brownish ochraceous Fore wing with two antemedial black specks; a spot at end of cell and speck below the end, a marginal series of specks

One specimen has a fuscous patch on costa of fore wing before

apex Hab. Kángra Exp 19 millim

Genus TRISCHALIS, nov.

Type, T flava, Hmpsn

Range Naga Hills, Burma, Ceylon, New Britain

Palpi slight and porrect Antennæ minutely ciliated in male Fore wing short, broad, and rounded, the costa arched, veins 4 and 5 stalked, 6, 7 and 8, 9 stalked Hind wing with veins 4 and 5 stalked, 6 and 7 stalked, 8 from middle of cell

1408 Trischalis flava, Hmpsn Ill Het ix, p 83, pl 158, fig 5

Fore wing yellow, a broad Head, thorax, and abdomen yellow

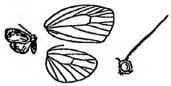


Fig 64 - Trischalis flava, 3 +

Hab Nága Hills, Ceylon

fuscous band below the costa, commencing as a patch on the inner basal area and curving round to outer angle Hind wing pale yellow

A large specimen from the Nága Hills (20 millim) has the band on fore wing narrow and terminating before the outer angle

Exp 14-20 millim

1409. Trischalis dulcicula, Swinh Trans Ent Soc 1800, p 183

Head and prothorax orange, meso- and metathorax purplish Fore wing purplish grey, a broad orange band from the base along the costal and outer areas with a dark line, on which are a few leaden scales, defining the two colours Hind wing pale fuscous, the margins and cilia ochreous

Hab Rangoon, Ceylon Eap 14 millim

Genus TROPACME, nov.

Type, T cupreimargo, Hmpsn

Range Burma

Palpi minute antennæ simple in female, tibiæ with the spines rather long Fore wing with the costa highly arched, the apex turned over below, the outer margin oblique, vein 3 from before angle of cell, 4 and 5 from the angle, 6 and 7 from upper angle, 8 and 9 stalked from before angle Hind wing with vein 3 from before angle of cell, 4 and 5 on a long stalk, 6 and 7 stalked

1410. Tropacme cupremargo, n sp

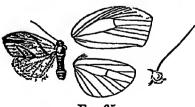


Fig 65 Tropacme cupreimargo, Q

Y Othreous, abdomentinged with fuscous Fore wing with oblique ante- and postmedial lines, obsolete towards costa, the outer margin cupreous pink, especially at outer angle

Tenasserim Valley (Doherty) E_{1p} 18 millini

Type in coll Druce

Genus NOTATA

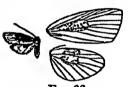
Notata, Hmpsn Ill Het viii, p 47 (1891)

Type, N parva, Hmpsn

Range Nilgiris

Palpi porrect and minute Antennæ minutely cliated in male Fore wing of male with a large patch of modified scales in cell on underside, veins 4 and 5 from angle of cell, 6 from below upper angle, 7, 8 and 9, 10 stalked Hind wing with a large patch of modified scales below the costa and in and beyond cell, veins 4 and 5 from angle of cell, 6 and 7 stalked, 8 from middle of cell

1411 Notata parva, Hmpsn Ill Het vin, p 48, pl 139, fig 5



3 Pale straw-colour, the hind wing paler, the patches of modified scales on the underside of fore wing and upperside of hind wing fuscous

Hab Nilgiris. Erp 16 millim

Fig 66 Notata parva, d 1

Genus HOLOCRASPEDUM.

Holocraspedon, Hmpsn Ill Het 1x, p 83 (1893)

Type, H nigi opunctum, Hmpsn

Range Ceylon

Palpi porrect, reaching beyond the frons Antennæ ciliated in male. Fore wing with veins 4 and 5 from angle of cell, 6 from below upper angle, 7,8 and 9,10 stalked. Hind wing with veins 4 and 5 from angle of cell, 6 and 7 stalked, 8 from near end of cell.

1412 Holocraspedum nigropunctum, Hmpsn Ill Het 1x, p 84, pl 158, fig 4

d Head, thorax, and abdomen white, thorax spotted with

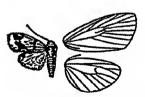


Fig 67—Holocraspedum nigropunctum, 3 }

black Fore wing white, some black on base of costa, a curved antemedial black line, a spot in the cell and a spot at end of it, a postmedial line excurred round end of cell and joining the antemedial line at inner margin, some black streaks beyond the postmedial line, a marginal series of short lines Hind wing yellowish white, the apex slightly suffused with fuscous

Cocoon suspended by a cord and formed of network strengthened by two cross bands

Hab. Nawala-pittia, Ceylon. Eup 20 millim.

Genus TRICHOGYIA, nov

Type, T_semifascia, Hmpsn

Range Burma

d Palpi upturned, the 2nd joint reaching above vertex of head, the 3id short, antennæ minutely ciliated, tibiæ hairy. Fore wing short and broad, the apex nearly rectangular, the inner margin much arched, veins 2 and 3 from near angle of cell and much bent at base, 4 and 5 from the angle, 6 and 7 from close to upper angle, 8, 9, 10 stalked from before the angle. Hind wing ample, veins 3 and 4 stalked, 5 from above angle of cell, 6, 7 from cell

1413 Trichogyia semifascia, n sp

Dark red-brown, head fulvous Fore wing with a black speck at end of cell and au incurved white nairow band from



it to unner margin, an obscure dark mark beyond the cell Hab Tenasserim (Doherty) Evp 20 millim Type in coll

Fig 68 — Trichogyna semifascia, of 💈

Druce

Genus IDOPTERUM, nov

Type, I ovale, Hmpsn

Range Sikhim, Bhután, Nágas, Burma

Palpi shoit and porrect Antennæ ciliated in male, almost simple in female, in which the abdomen has the two terminal segments suddenly expanded to double the width of the basal segments. Fore wing with the costa arched, the apex rounded, the outer margin very obliquely curved, vein 3 from before angle of cell, 4 and 5 from angle, 6 from upper angle, 7, 8, 9 stalked, 10 and 11 from before the angle. Hind wing with vein 3 from before the angle of cell, 5 from above angle, 6 and 7 stalked, 8 from middle of cell.

SECT I Fore wing with vein 9 given off from 8 nearer the apex than 7

A Fore wing, vein 11 not anastomosing with 12

1414 Idopterum ovale, n sp



Fig 69 -- Idopterum ovale, 9

Q Head whitish, thorax and abdomen pale fuscous Fore wing pale fuscous, the costal and inner margin whitish, an obliquely curved antemedial whitish band Hind wing pale fuscous, the inner and outer margins whitish

Hab Bernardmyo, Burma (Doherty) Exp 27 millim Type in coll Elwes

B Fore wing, vein 11 anastomosing with 12.

1415 Idopterum rubrimargo, n sp

d Head, thorax, and abdomen fuscous, frons, collar, and tegulæ crimson. Fore wing fuscous, the costa, inner margin, and cilia crimson, black basal and subbasal spots, two antemedial blackish nearly straight and erect lines, a black spot at end of cell. Hind wing fuscous, the inner area tinged with crimson.

Hab Sikhim Erp. 26 millim Type in coll Elwes

SECT II Fore wing with vein 9 given off from 8 further from apex than 7

1416 Idopterum dudgeoni, Elw P Z S 1890, p 388, pl 32, fig. 10

Q. Head and tegulæ ochreous, frons white, collar, thorax, and abdomen fuscous Fore wing with the margins pale, the whole disk suffused with fuscous, the base, costa, and aper white, the inner and outer margins ochreous, an ochreous streak from the base through the cell to outer margin, cilia fuscous Hind wing fuscous, the basal area and outer margin white, suffused with ochreous.

Hab Sikhim Exp 24 millim.

1417 Idopterum anomalum, Elw P Z S 1890, p 388, pl 32, fig 14

Head and thorax crimson Fore wing crimson, with a black streak from base of cell to centre of outer margin, the median nervure pale Abdomen and hind wing smoky black

Hab Sikhim, 5000 feet, Bhutan, Nagas, Upper Buima. Eip,

♂ 26, ♀ 34 millim

Genus SCAPTESYLE

Scaptesyle, Wik Cut 11, p 378 (1854)

Type, S tricolor, Wlk.

Range Assam, Burma, Ceylon

Palpi upturned reaching vertex of head, antennæ of male minutely chiated. This with the spurs long. Fore wing with veins 4 and 5 stalked, 6 from below angle of cell, 7, 8, 9 stalked. Hind wing with veins 3 and 4 stalked, 5 from above angle of cell, 6 and 7 stalked, 8 from middle of cell.

1418 Scaptesyle tricolor, Wlk Cat n, p 378, C & S no 364

Head, thorax, and abdomen brownish black, the third joint of



Fig 70 -Scaptesyle tricolor, of

palpi and basal joint of antenna in front white, legs banded with white, collar and tegulæ bright yellow, a white tuft at end of abdomen Wings bright crocus-yellow, fore wing with a basal black patch, the outer area bright coppery red, with its

edges black, hind wing with an apical black patch narrowing to anal angle

Hab Silhet, Burma Enp 32 millim

1419. Scaptesyle bicolor, Wik Cat xxxi, p 182, Moore, Lep Ceyl
11, pl 96, fig 2, C & S no 363
Dichiomia nietneri, Feld Reis Nov pl 106, fig 25

Differs from tricolor in being deep black and bright golden vellow, fore wing with the outer area broader and wholly black, hind wing with the marginal black area much broader and leaching anal angle

In the specimen from the Khásis the marginal black band is

much narrower than in typical Ceylon specimens

Hab Khásis, Ceylon Erp 30 millim

Genus GURNA

Guina, Swinh Cat Het Mus Oron p 123 (1892)

Type, G indica, Moore

Range Bombay

Palpi very minute Antennæ minutely chiated in male Mid and hind tibiæ with very minute terminal pairs of spurs. Fore wing rather narrow, veins 4 and 5 from angle of cell, 6 from below apper angle, 7, 8, 9 stalked. Hind wing with veins 4 and 5 from angle of cell, 6 and 7 stalked, 8 from beyond middle of cell.

1420 Gurna indica, Moore, P Z. S 1879, p 390, C & S no 276



Fig 71 Gurna indica, 5 †

Liver-brown, from yellow, tegulæ with the posterior half orange, abdomen with the extremity orange. Fore wing with a large yellow spot in the cell just beyond the middle, and another at centre of outer margin. Hind wing with the basal half orange.

Hab Bombay Enp 28-30 millim

Genus NEPITA

Nepita, Moore, Lep E I Co p 302 (1858) Pitane, Il Il. Cat 11, p 531 (1854), præocc Cabarda, Il Il. Cat Num, p 435 (1863) Adites, Moore, Lep Ceyl 11, p 61 (1882)

Type, N conferta, Wlk

Range Throughout India, Ceylon, and Burma, Borneo

Pali porrect, extending beyond the frons, and fringed with hair below. Antennæ roughly scaled. Tibiæ with the spurs rather long. Fore wing rather short and broad, veins 3, 4,5 from close to angle of cell, 6 from below upper angle, 7, 8,9 stalked, 11 sometimes anastomosing with 12. Hind wing with veins 4 and 5 stalked, 6 and 7 from angle of cell or stalked, 8 from beyond middle of cell.

SECT I (Neprta) Male with the autennæ bipectinated, the branches short

1421 Nepita conferta, Wik Cat II, p 533, Moore, Lep Ceyl II, pl 104, figs 7, 7 a, b, c, d (larva), C & S no 644
Nepita anila, Moore, Cat E I Co p 302, C & S no 643
Nepita signata, Wik Cat xxxx, p 240
Nepita ægrota, Butl Trans Lnt Soc 1877, p 336, C & S no 642
Nepita ochracea, Butl Trans Ent Soc 1877, p 336, C & S no 648
Nepita limbata, Butl Trans Ent Soc 1877, p 336, C & S no 647
Nepita conferta, var fusca, Hnipsn, Ill Het 1x, pl 158, fig 6

Head and thorax orange, the latter spotted with black, abdomen



Fig 72 - Nepita conferta, &

black, orange below and at extremity Fore wing orange, some black marks at base, antemedial and medial curved and waved bands which coalesce at median nervure, a black spot on discocellulars, a postmedial waved band, excurved

round end of cell, a series of submarginal spots and streaks, often conjoined into a band, the margin and cilia black. Hind wing with the base orange, a broad marginal black band, some specimens with orange spots on it at centre of outer margin.

The forms limbata and och acea have the bands of the fore wing rather narrow, conferta, ægrota, and anda broad in anila and limbata the marginal band of the hind wing is narrowest, in conferta broader, in ochracea and ægrota very broad, and running up the inner margin towards the base

In the Deltota district of Ceylon the brown suffused form fusca is found

Larva short, tumid at middle, colour purple-black, each somite thickly covered with tufts of long black hair, some dorsal orange marks on first, seventh, and anal somites, and a slender line from seventh to anal somite

Cocoon slight

Hab Throughout India, Ceylon, and Burma Erp, & 22-28, 2 32-34 millim

SECT II (Cabarda) Male with the antennæ ciliated.

1422 Nepita hilaris, Wik Cat 11, p 530, Moore, Lep Ceyl 11, pl 104, fig 6, C & S no 646

Head and thorax white, spotted with yellowish brown, abdomen white Fore wing white, a blackish spot near the base, two subbasal yellowish-brown spots, antemedial and medial yellow-brown lines, the former waved, the latter irregularly curved, a blackish spot at end of cell, a waved postmedial line excurved round end

of cell, a submarginal series of more or less conjoined streaks, a marginal series of specks. Hind wing white, the outer margin slightly suffused with brown

Hab Ceylon $E_{1}p$, 322, 24 millim

1423 Nepita frigida, Will Cat 11, p 530, C & S no 645 Lyclene drilusa, Will Journ Linn Soc vi, p 111

Head, thorax, and abdomen brownish white Fore wing white, a basal yellowish-brown patch with a spot beyond it, a subbasal irregular brown band, the whole disk suffused with yellowish brown, leaving patches of white on the margins, and two curved series of postmedial white specks bent inwards below the cell, the brown area reaching almost to the margin, below apex and above outer angle, chia spotted with pale brown Hind wing white, the outer area slightly suffused with brown

Specimens from Sikhim and the Naga Hills have the hind wing

suffused with fuscous and a black spot at end of cell

Hab Sikhim, Nágas, Burma, Boineo Eip, & 21, Q 24 millim

Genus MILTOCHRISTA

Miltochrista, Hubn Verz p 166 (1818) Sesapa, Wilk Cat 11, p 547 (1854) Lyclene, Moore, Cat L I Co p 300 (1858) Cyllene, Wilk Cat 11, p 548 (præccc) Barsine, Wilk Cat 11, p 546 Setinochica, Feld Reis Nov p 9 (1875) Korawa, Moore, P Z S 1878, p 11

Type, M miniata, Forst, from Europe

Range Palwarctic, Æthiopian, Oriental, and Australian regions Palpi short and poriect Anteinæ with the cilia long in male,

minute in female, or bipectinated in male

This with the spuis rather short. Fore wing with vein 5 from just above lower angle of cell, 6 from upper angle, or stalked with 7, 8, 9, 10 from close to the angle or some way before it, 11 from one-half to three-fourths length of cell and straight, or curved and running close along 12, or anastomosing with 12. Hind wing with vein 5 on a short stalk with 4, or from a point with it, or from above the angle, 6 and 7 stalked, 8 from near end of cell These variations occur in similar specimens from the same localities

SECT I (Miltochrista) Fore wing with the cell narrow, antennæ of male ciliated

1424 Miltochrista strigivenata, n sp

d Head and thorax crimson, abdomen black with the base ochreous, the anal tuft ochreous, tipped with crimson. Fore wing bright crimson, the costa slightly black, a prominent oblique medial straight black line, the veins beyond the cell streaked with black. Hind wing paler.

Hab Nága Hills, 6000 feet (Doherty) Erp 25 millim Type

in coll Elwes

SECT II (Barsine) Fore wing with the cell broad, antennæ of male ciliated

A Fore wing with an irregular and highly dentate postmedial line a The ground-colour crimson

1425 Miltochrista dentifascia, n sp

Pale crimson Fore wing with some black specks near the base, slightly excurved antemedial and incurved medial lines, a spot at end of cell, a very highly dentate postmedial line commencing as an oblique line from the middle of costa, with a series of black specks beyond its angulations

Hab Momeit, Burma (Doherty) Exp 25 millim Type in

coll Elwes

b The ground-colour ochreous

Miltochrista undulosa, Wik Cat 11, p 545, C & S no 639
Miltochrista straminea, Wik Cat vii, p 1685, C & S no 632
Sesapa decurrens, Wik Cat vii, p 255, C & S no 637
Sesapa excurrens, Wik Cat vii, p 255, C & S no 638
Lyclen easamica, Moore, P Z S 1878, p 33, pl 3, fig 8, C & S

Pale ochreous, the patagia and vertex of thorax spotted with

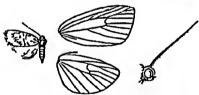


Fig 73 -Miltochrista undulosa, of +

black, the extremity of abdomen blackish in male Fore wing with a black speck at base, a series of short subbasal streaks, a waved antemedial line, a doubly curved or nearly straight medial line, which is altogether obsolete in the form assamica, a spot at end of cell, an n regular

highly dentate postmedial line, submarginal and maiginal series of specks

The form undulosa from Moulmein is small (of 17 millim), with the ground-colour of fore wing whitish The Himalayan form is larger and more ochreous

Hab Kángra, Sikhim, Khasis, Moulmein Evp, σ 17–23,

Q 28 millim

Miltochrista complicata, Butl Trans Ent Soc 1877, p 344

Differs from undulosa in the antemedial line of the fore wing being more evenly curved, the medial line outwardly oblique towards inner margin the marginal series of specks absent, the apical part of costa and cilia black. Hind wing slightly suffused with fuscous at a sex of on disk

Hab Naga Hills, Boineo Erp 20 millim

1428. Miltochrista prominens, Moore, P Z S 1878, p 31, pl 3 fig 3, C & S no 689

Differs from delicata in the thorax having two black spots. Fore wing with a black angulated line beyond the antemedial spots, the postmedial series taking the form of a highly denticulated and angulated line—the marginal streaks of both wings usually broader Hab Khásis—Evp., 5 32, 9 34 millim

1429 Miltochrista semifascia, Wlk Cat 11, p 521, Moore, Lep Ceyl 11, pl 103, fig 7, Hmpsn Ill Het 12, pl 175, fig 7 (larva), C & S no 649

Lyclene semifascia, var metamelas, Hmpsn Ill Het 12, pl 158, fig 11

Lyclene obsoleta, Moore, P Z S 1878, p 32, pl 3, fig 7, C & S

no 687

Differs from undulosa in the antemedial and medial lines of the fore wings being reduced to a series of spots, the postmedial line more regularly dentate, the marginal series of specks absent, the disk often suffused with fuscous

Some specimens have the outer margin of hind wing fuscous; the variety metamelas has the extremity of abdomen in male black, obsoleta has a black marginal band to hind wing and submarginal band from costa of hind wing on underside

Larva thickly clothed with short close black hairs, which open

out at the joints when it rolls itself into a ball

Hab Sikhin, Assam, throughout S India and Ceylon Exp, & 20, 9 25-26 millim

c The ground-colour white

1430 Miltochrista nigralba, n sp

Head fulvous yellow, spotted with black, thorax white, spotted with black, abdomen fulvous. Fore wing white, a black spot at base, three antemedial lines, each composed of three black spots, a spot at end of cell, a highly dentate postmedial line sending off streaks along the subcostals, submarginal and cihal series of spots. Hind wing white, with traces of a medial band, the outer area suffused with fuscous, the veins crossing it black.

Hab Bernardmyo, E Pegu (Doherty) Erp, & 24, 228 millim.

Type in coll Elwes

1431 Miltochrista multistriata, n sp

o Differs from nigralba in the thorax being fulvous, spotted with black. For wing with the two outer antemedial bands replaced by fine irregular lines starting from the same point on the costa, the veins on the outer area streaked with black in place of the specks, a fine marginal black line

Hab Naga Hills, 6000 feet (Doherty) Exp 22 millim Type

in coll Elwes

110 ARCTIIDÆ

B Fore wing with no postmedial line, the outer area streaked with black

a The ground-colour reddish

1432 Miltochrista parallelina, n sp

Q Head, thorax, and abdomen ochreous. Fore wing reddish orange, a series of subbasal irregular black specks, an indistinct postmedial straight line, a spot on discocellulars, a series of submarginal streaks on the nervules

Hab E Pegu (Doherty) Exp 19 millim Type in coll Elwes

b The ground-colour yellowish.

1433 Miltochrista linga, Moore, Cat E I Co p 301, C & S

of Very pale yellow, collar and extremity of abdomen tinged with orange, tegulæ and thorax spotted with black. Fore wing with three black spots at base, antemedial and medial series, each of six spots, the veins of outer area streaked with black.

Q with the head collar, and abdomen fulvous yellow Hab Kangra, Sikhim Eip, & 38, Q 44 millim

1434 Miltochrista delicata, Moore, P Z S 1878, p 31, C & S no 679

Q Head, thorax, and abdomen ochreous Wings ochreous, fore wing with basal and subbisal black spots, an antenedial series, a medial straight line, a spot at end of cell, a postmedial curved series, the veins of the marginal area streaked with black on fore and hind wing

Hab. Sikhim Evp 31 millim

1435. Miltochrista palmata, Moore, P Z S 1878, p 31, pl 3, fig 5, C & S no 688

Q Head, thorax, and abdomen orange-yellow, mesothorax with paired black spots. Wings very pale yellow. Fore wing with three subbasal and three antemedial metallic blue-black spots, three medial purple-black spots, the interspaces of the outer half of wing streaked with purplish black, the streaks not reaching the outer margin. Hind wing with submarginal fuscous streaks, obsolescent towards anal angle.

A female from Simla has the markings of fore and hind wings

very much reduced

Hab Simla, Kangra, Assam Eap 33 millim

1436. Miltochrista maculifasciata, n sp

Q Head, thorax, and abdomen orange-yellow, the thorax spotted with black Fore wing pale flesh-colour, a basal blue-black spot, a subbasal series of three spots, two antemedial more

or less conjoined series, a spot at end of cell, the veins of the outer area broadly streaked with blue-black, the bases of the streaks enlarged and almost conjoined into a curved line. Hind wing pale flesh-colour, inner area yellowish, veins of outer area broadly streaked with blue-black.

Hab Burma Exp 36 millim. Type in B M

Miltochrista strigipennis, Hen-Schaffer, Samml aussereur Schmett no 437
Lyclene discistiga, Moore, P Z S 1878, p 32, C & S no 680
Lyclene terminata, Moore, P Z S 1878, p 33, C & S no 692
Lyclene sinica, Moore, A M N H (4) xx, 1877, p 87
Lyclene inconspicua, Moore, P Z S 1878, p 32, C & S no 683

Ochreous, fore wing with a series of basal streaks, a medual slightly curved line, outer area with fine black streaks on the veins

The form sinica=inconspicua has a reddish-orange tone

Hab China, Sikhim, Khásis, Nágas, Tenasserim, Sumatra,

Borneo Exp, 3 22, \$2 33 mm

- C Fore wing with a series of postmedial specks or blotches conjoined into a band
- 1438 Miltochrista fuscalis, Hmpsn Ill Het viii, p 50, pl 139, hg 9
- d Head ochreous, thorax orange, the tegulæ and vertex spotted with black, abdomen fuscous, with an ochreous anal tuft Fore wing fiery red, the costa and median nervure streaked with black at base, a large subbasal fuscous patch coalescing with an oblique band, a spot on discocellulars joined to a large patch occupying the whole outer area, ciha ochreous. Hind wing ochreous, with traces of an oblique medial band, some specimens with the apex suffused with fuscous

Hab Nilgiri plateau Exp 22-32 millim

- 1439 Miltochrista suffusa, Hmpsn Ill Het viii, p 49, pl 139, fig 18
- Q Head, thorax, and fore wing flesh-pink, abdomen fuscous, with an othereous anal tuft. Fore wing with a basal black spot, a subbasal fuscous band coalescing with an oblique band, the discocellulars black, a curved postmedial band with some spots beyond it, a series of submarginal specks. Hind wing fuscous, the outer margin flesh-pink, calia fuscous

Hab Nilgiris, W slopes, 3000 feet Eip 28 millim.

1440 Miltochrista rubricosa, Moore, P Z S 1878, p 30, pl 3, fig 1, C & S no 706
Lyclene cuivifascia, Hmpsn Ill Het viii, p 49, pl 139, fig 17
Lyclene ochracea, Hmpsn Ill Het viii, p 51, pl 139, fig 26

Differs from suffusa in the medial band of the fore wing being widely separated from the antemedial band, the postmedial band

more irregular, nearer the margin, and without spots beyond it Hind wing flesh-pink, some specimens with traces of a medial band

The form *ubricosa has the medial band of fore wing oblique, the marginal specks almost obsolete, in curvifascia the band is more erect and the specks prominent, ochracea is ochreous with only a slight tinge of pink

Hab Bombay, Khandala, Nilgiris, Ceylon Eip, 3 20,

♀ 22-26 millim

1441 Miltochrista arcuata, Moore, Lep Ceyl 11, p 62, pl 103, fig 5, C & S no 675
Lyclene 10sea, Hmpsn Ill Het viii, p 50, pl 139, fig 19
Lyclene auroia, Hmpsn Ill Het viii, p 50, pl 139, fig 20

Differs from rubricosa in being pinker, the subbasil band being reduced to a series of irregularly placed specks, the medial band narrow and more erect, the postmedial band reduced to irregularly placed spots

In the form arcuata the medial band is slightly curved, in rosea and aurora straight, the last has the band very narrow and the

subbasal and postmedial specks almost obsolete

Hab Nilgiiis, Ceylon Esp, ♂ 20, ♀ 22 millim

1442 Miltochrista ila, Moore, Lep E I Co p 300, id Lep Ceyl ii, pl 103, fig 6, C & S no 682

Differs from ruptifascia in the subbasal and postmedial bands of the fore wing being reduced to series of specks, the medial band broad, regular, and nearly erect, a marginal series of specks Hab Canara, Ceylon Exp 22-24 millim

- 1443 Miltochrista solita, Wlk Cut 11, p 521, Moore, Lep Ceyl 11, pl 103, fig 8, C & S no 726
 Setina punctilinea, Moore, P Z S 1878, p 34, id Lep Ceyl 11, pl 103, fig 9, C & S no 653
- obsolete Fore wing in male with the medial and postmedial series of specks almost entirely obsolete, fairly well marked in female Hab Ceylon Evp, 324, 226 millim

1444 Miltochrista magna, n sp

Q Head, thorax, and abdomen pale lemon-yellow Fore wing lemon-yellow, the veins paler, a black spot at base, a curved postmedial series of indistinct fuscous specks Hind wing ochreous white

Hab Manipur, Bernardmyo (Doherty) Exp 48 millum Type

ın coll Elwes

1445 Miltochrista pallida, Moore, P Z S 1878, p 12, C § S no 572

Head, thorax, and abdomen white, collar orange Fore wing uniform very pale ochreous, the cilia white Hind wing white Hab Sikhim Exp, 338, 255 millim

1446 Miltochrista sexpuncta, n sp

of Ochreous Forewing with a black spot at base, a prominent spot above centre of cell, one at end of cell, with one below it above inner margin and two spots near centre of outer margin Abdomen and hind wing paler

Hab Bernardmyo, Burma, 6000 feet (Doherty) Exp 26 millim

Type in coll Elwes

1447 Miltochrista spilosomoides, Moore, P Z S 1878, p 33, C & S no 691

3 Head, thorax, and abdomen yellowish white, the last ochreous at extremity, tegulæ and shoulders with black spots Wings yellowish white, fore wing with a black spot at base and ante- and postmedial series of black specks

Hab "NW India" Evp 44 millim

1448 Miltochrista dharma, *Moore*, *P Z S* 1879, p 394, *C & S* no 650

Differs from solita in the postmedial series of specks being nearer the marginal series, the medial and marginal series of specks absent, all the specks larger and more prominent

A male from the Naga Hills has the subbasal series of spots of

fore wing absent

Hab NW Himalayas, Nága and Karen Hills Evp 28 millim

1449 Miltochrista infumata, Feld Reis Nov pl 106, fig 16, C & S no 718

Setinochroa postica, Moore, P Z S 1878, p 36, C & S no 720 Setinochroa pallida, Moore, P Z S 1878, p 35, C & S no 719 Setina decisigna, Moore, P Z S 1878, p 35, C & S no 651

Head, thorax, and abdomen orange-yellow Fore wing orange-yellow, with a black speck at base, a prominent spot at end of cell, a submarginal series of seven spots. Hind wing smoky black, a black line on discocellulars, the inner area more or less suffused with orange, cilia orange.

Hab N W Himalayas Exp 25 millim

1450 Miltochrista fuscifusa, Swinh MS

d Differs from *infilmata* in the fore wing being without the submarginal series of black spots, hind wing slightly suffused with fuscous

Hab Khásis Erp 30 millim Type in B M

- 1451 Miltochrista cylletona, Swinh A M N H (6) xi', p 217
- d Differs from *infumata* in the fore wing having two antemedial black specks, a black marginal band from centre of costa to apex and outer angle, hind wing with black marginal band, underside of fore wing not black

Hab Shan States Eap 20 millim

- 1452 Miltochrista aurantiaca, Moore, P Z S 1878, p 35, pl 3, fig 12, C & S no 717
- d Differs from *infumata* in having two subbasal black spots on fore wing beyond the basal spot, the apical spot of the submarginal series and those in interno-median interspace obsolete. Hind wing with the basal area more suffused with orange

Hab Khasis Exp 24 millim

- 1453 Miltochrista obliqua, Hmpsn Ill Het viii, p 51, pl 139, fig 25
- 3 Differs from rubi icosa in being pale ochieous, the medial line of fore wing straight, narrow, and oblique, abdomen fuscous, with the anal tuft ochreous

Hab Nilgiri plateau Eip 28 millim

1454 Miltochrista congerens, Feld Reis Nov pl 106, fig 14, C & S no 678

Lyclene artocarpi, Moore, P Z S 1878, p 30, C & S no 676

Differs from rubricosa in being more ochreous, the marginal series of specks on fore wing absent

Hab N'W Himalayas, Sikhum, Calcutta Eap 21 millim

1455 Miltochrista ruptifascia, Hmpsn III Het ix, p 85, pl 158, fig 12

Differs from congerens in being pure ochreous, the subbisal band of fore wing outwardly oblique towards inner margin, and anastomosing with the medial band, the upper portion of the postmedial band reduced to a series of specks. Hind wing with a well-defined medial fuscous band

Hab Ceylon Exp 18 millim

- 1456 Miltochrista floccosa, Wik Cat and, p 274, C & S no 723
- Q Semidiaphanous pale brownish otherous. Fore wing with indistinct subbasal and medial fuscous bands, a spot on discocellulars, postmedial and marginal series of specks.

Hab Combatore Eap 22 millim

- 1457 Miltochrista subcervina, Will Cat xxxi, p 274, C & S no 727
- Differs from fleccosa in being of an orange tone, the antemedial, medial, and postmedial bands of fore wing better defined Hab Ganjam Exp 18 millim

1458 Miltochrista nubilalis, n sp

d Head yellow, thorax and abdomen fuscous Fore wing semihyaline yellow, a large basal fuscous patch joined on inner margin by a very broad fuscous postmedial band. Hind wing yellow, an indistinct fuscous medial band, narrow at costa, broad at inner margin, where it nearly reaches the anal angle

Hab Ganjam (Minchin) Exp 20 millim Type in coll Druce

1459 Miltochrista humilis, Wlk Cat 11, p 544, C & S no 681 Setina calamaria, Moore, P Z S 1888, p 392, C & S no 649 A Setina nebulosa, Moore, P Z S 1878, p 35, C & S no 652 Setina dasara, Moore, Lep E I Co p 303 Barsine chromatica, Switch Trans Ent Soc 1891, p 135 Setina p punctata, Elues, P Z S 1890, p 389, pl 32, fig 18

Bright ochieous Fore wing with a dark speck at base, a curved postmedial band, a dark spot at end of cell, a postmedial band of irregular fuscous blotches Hind wing in some specimens

with traces of a submarginal fuscous band

The form humins from Burma (Q 22 millim) has the postmedial band broad on the disk and widely separated from the antemedial band, in dasara=chromatica, from Kángra, the Nilgiris, Sumatra, Java (30 millim), the band is narrower, much more irregular, and often conjoined to the antemedial band below the cell, in nebulosa, from Sikhim (Q 32 millim), the antemedial band expands into a large patch on inner margin conjoined to the postinedial band, which is very broad and occupies the whole disk, the hind wing whitish

The form calamaria = punctata has all the markings obsolete,

except the black spots at base and end of cell of fore wing

Hab Punjab, Sikhim, Nágas, Nilgiris, Moulmein, Java Evp 22-32 millim

- 1460 Miltochrista varians, *Hmpsn Ill Het* 1x, p 85, pl 158, figs 10, 20, 32, 33
- d Head and thorax orange, the latter spotted with black, abdomen and wings black, fore wing with a slight bronzy tinge, a black speck at end of cell

In another form the fore wing has a basal orange spot, medial spots on costa and inner margin, the apex streaked with orange

Q With an analochieous tuft, forewing with the base orange, two costal spots and one on inner margin, the outer margin orange, with a series of black specks

In another form the fore wing is mostly orange with a basal black spot, an irregular antemedial line conjoined to an irregular medial patch and postmedial band, hind wing suffused in parts with otherous

Hab Ceylon Erp 20 millim

- 1461 Miltochrista andamana, Moore, P Z S 1877, p 597, C & S no 636
 - Pale ochreous, thorax spotted with black Fore wing

whitish, with a black speck at base, some subbasal short streaks, a slightly curved medial line, a spot at end of cell, a submarginal series of specks and marginal line

Hab Andamans Exp 17 millim

- D Fore wing with a curved postmedial line, with fuscous streaks beyond it
- 1462 Miltochrista conjunctana, Wlk Cat xxxv, p 1788, C & S no 695
 Miltochrista tessellata, Butl Ill Het v, p 39, pl 86, fig 12, C & S no 633

Bright ochreous Fore wing with a black spot at base, the basal part of the costa black, a doubly angulated antemedial band with its angles conjoined to an angulated medial band, which again touches a doubly curved postmedial band sending three spurs outwards towards the margin, a marginal black line

Hab Sikhim, Cachar, Nágas Erp 19-22 millim

- 1463 Miltochrista euprepioides, Wil. Journ Linn Soc vi, p 102 Lyclene interserta, Moore, P Z S 1878, p 32, pl 3, fig 6, C § S no 685
- Q Bright ochreous, head, collar, and tegulæ marked with dark brown Fore wing with the margins blown, a basal band, an angulated antemedial band, a doubly angulated medial band with its angles conjoined to the antemedial band, and sending a streak below the subcostal nervure and a fork below the median to a curved and angulated postmedial band, parallel to which is another band sending three streaks to the outer margin, cilia dark brown

The Sikhim form interserta has the brown bands much narrower

than the Bornean form

Hab Sikhim, Nigas, Borneo Exp 36 millim

- 1464 Miltochrista radians, Moore, P Z S 1878, p 30, pl 3, fig 2, C & S no 690
- d Differs from prominers in the subbasal, antemedial and medial series of fore wing being formed of short lines, the medial series nearly erect, the postmedial further from the base and almost evenly curved, the streaks on the veins of fore and hind wings shorter, the fork of the streaks on veins 8 and 9 nearer the apex Hab Calcutta Evp 22 million
- 1465 Miltochrista zebrina, Moore, P Z S 1878, p 31, pl 3, fig 4, C & S no 693
- Q Differs from prominers in the medial line of the fore wing being straighter, the postmedial line excurved round the end of cell, but not denticulate, the fork of the streaks on veins 8 and 9 as in radians Hind wing with the marginal streaks somewhat diffused so as to form a fuscous band

Hab Calcutta Erp 24 millim.

1466 Miltochrista coccinea, Moore, Jour A S B lv, 1886, pt 2, p 98, C & S no 694

Head, thorax, and abdomen orange-red, tegulæ each with a Fore wing orange, an excurred antemedial fuscous band, joined at middle to a medial band, which again joins a postmedial band below the median nervure, some short conjoined streaks beyond this band, all these markings being outlined with crimson, a series of marginal crimson spots. Hind wing pale crimson

Hab Margharita, Assam, Tavoy Eup 32 millim

1467 Miltochrista rhodina, Herr -Schaffer, Samml aussereur Schmett

Barsine trivittata, Moore, P Z S 1877, p 597, C & S no 709 Barsine exclusa, Butl Trans Ent Soc 1877, p 340

Antennæ, head, thorax, and abdomen crimson, tegulæ and thorax spotted with black Fore wing crimson, some black marks at base, subbasal and antemedial angulated lines which are conjoined at median nervure, a spot on discocellulars, a curved postmedial line with slight streaks and fuscous suffusion beyond it, cilia black Hind wing paler crimson

A specimen from Burma has the medial line nearly straight, and well separated from the antemedial line, no speck at end of cell, the streaks beyond the postmedial line prominent, the costa and

apex of hind wing black

Hab Burma, Andamans, Borneo Exp 26-28 millim

1468 Miltochrista cuneonotata, Wik Cat in, p 759, Moore, Lep Ceyl ii, pl 103, fig 10, C & S no 696 (part) Ammatlo roseorolatus, Butl Trans Ent Soc 1877, p 341 Barsine scripta, Wlk Cat xxxi, p 254
Miltochrista collivolans, Butl A M N H (5) viii, 1881, p 380

Head, thorax, and abdomen ochreous, generally suffused with Wings ochreous or suffused with crimson Fore wing with some basal spots and subbasal fuscous streaks, a curved antemedial line anastomosing in the cell with a doubly angulated medial line, a curved and angulated postmedial line, the outer interspaces streaked with fuscous, costa and cilia fuscous

The form cuneonotata is suffused with crimson, the veins of the outer area of fore wing prominently streaked with crimson, in roseororuta the crimson streaks are less prominent, and the hind wing with hardly a trace of crimson, scripta is entirely ochreous

Hab Sikhim, Nagas, Ceylon, Sumatra, Nias, Borneo Exp,

34, ♀ 42 millim

1469 Miltochrista punicea, Moore, P Z S 1878, p 29, C & S

Differs from cunconotata in the thorax being more strongly marked with black, abdomen black Fore wing without the red streaks in the interspaces, the medial angulated line after coalescing 118 ARCTIIDÆ

with the antemedial line touches the postmedial line in the internomedian interspace, the fuscous submarginal streaks very irregular in length. Hind wing with a series of streaks on the veins of the marginal area which coalesce into a more or less complete band, a speck at end of cell

Hab Sikhim, E Pegu Erp 24 millim

1470 Miltochrista cruciata, Wik Journ Linn Soc vi, p 101
Barsine gloriosa, Moore, P Z S 1878, p 29, pl 3, fig 16, C & S
no 699

Differs from cunconstata in the fore wing having the subbasal streaks absent, the medial and postmedial lines not angulated in the interno-median interspace, the fuscous streaks in the marginal interspaces slightly developed

Hab Sikhim, Khásis, Sumatra, Borneo Eip 31 millim

1471. Miltochrista inflexa, Moore, P Z S 1878, p 29, pl 3, fig 17, C δ S no 701

Differs from cunconotata in the thorax being spotted with crimson instead of black. Fore wing with the ground-colour bright orange, with crimson streaks between the veins, a dark patch on the junction of the antemedial and medial lines, the fuscous streaks beyond the postmedial line almost obsolete, the costa and cilia blacker. Hind wing with the cilia tinged with fuscous

Hab Sikhim Exp 24 millim

1472 Miltochrista postnigra, n sp

d Head and thorax orange, the latter spotted with black, abdomen black Fore wing orange, with black streaks from the base along costa, median nervure, and inner margin to an ante-medial curved line, touching at middle a slightly angulated medial line, a highly excurved postmedial line, the area beyond it black with red streaks in the interspaces. Hind wing black, with a yellow fascia along the basal half of costa

Hab Sikhim E2p 19 millim Type in coll Knyvett

E For e wing with maculate bands of crimson spots

Miltochrista gratiosa, Guer Deless Voy Ind ii, p 90, pl 26, fig 1, C & S no 700
Lithosia striata, Biem & Grey, Motsch Et Ent i, p 63
Barsine defecta, Wil. Cat ii, p 546, C & S no 696
Hypoprepia lanceolata, Wil. Cat vii, p 1680
Barsine mactans, Bull Trans Ent Soc 1877, p 340, C & S no 703
Miltochrista pulchra, Butl A M N H (4) vi 1877, p 396
Barsine flammealis, Moore, P Z S 1878, p 28, pl 3, fig 15, C & S no 697
Barsine pretiosa, Moore, P Z S 1879, p 394, C & S no 704

Head, thorax, and abdomen crimson, or ochreous more or less suffused with crimson, tegulæ and vertex of thorax spotted with black. Fore wing ochreous, a black spot at base, subbasal, antemedial, and medial series of crimson spots, two crimson spots

beyond the cell, a series of long streaks in the marginal interspaces, black lines between the series of crimson spots, these lines being sometimes reduced to series of specks, the outer line produced into more or less prominent streaks between the crimson streaks

Hind wing crimson or ochreous

The form flammealis=mactans has the ground-colour of fore wing slightly suffused with crimson, in gratiosa it is yellow, the first two black lines being reduced to specks, in pretiosa the hind wing is but slightly tinged with crimson, in defecta it is ochreous in pulchra and striata, from Japan and China, the fore wing is slightly shorter and broader, the postmedial black line reduced to specks and the black streaks slightly developed, the former has the hind wing crimson, the latter ochreous. A specimen from the Khásis has the red markings of fore wing almost obsolete

Hab Japan, China, throughout the hills of India, Ceylon, and

Burma E_{1p} , 30-36, 40-46 millim

- 1474 Miltochrista delicia, Swinh Trans Ent Soc 1891, p 477, pl xix, fig 12
- Q Differs from gratiosa in the crimson spots of the fore wing being smaller, a postmedial series is present separated from the marginal streaks, which are short, the lines brown, the antemedial line curved and coalescing at middle with the medial oblique line, the postmedial line more angulated, cilia fuscous

Hab Khásis / Nága Hills Erp 28 millim

- 1475 Miltochrista esmia, Swinh A M N H (6) xii, p 217
- ¿ Pale pink, fore wing with fuscous streaks on the veins, in cell, and interno-median interspace, and red streaks in the interspaces

Hab Shán States Erp 30 millim

- 1476 Miltochrista flavivenosa, *Moore*, *P Z S* 1878, p 30, pl 3, fig 18, *C* § *S* no 698
- d Differs from gratiosa in the fore wing having an excurved antemedial line, coalescing for a short distance with an incurved medial band, the postmedial line near the margin and much less curved, the fuscous streaks beyond it very short and only from costa to vein 4 Hind wing almost white

Hab Sikhim Exp 24 millim

SECT III Antennæ of male bipectinated

1477 Miltochrista nubifascia, Wlk Cat xxxi, p 251', Butl Ill Het v, pl 86, fig 11, C & S no 686

Barsine punctifascia, Wlk Char undescr Het p 9

Lyclene indistincta, Moore, P Z S 1878, p 33, pl 3, fig 9, C & S no 684

Lyclene simplifascia, Elw P Z S 1890, p 389, pl xxxii, fig 19

Head, thorax, and fore wing bright ochreous, the last with a spot at base, an antemedial series of four spots, two medial

slightly curved series of five spots, a postmedial fascia, which is sometimes almost obsolete, sometimes very broad and prominent, with its edges angulated Abdomen and hind wing pale ochreous

The form simplifascia has the two medial series of specks on fore wing straighter and further apart, indistincta has the markings

almost obsolete

Hab Sikhim Exp, 334, 240 millim

1478 Miltochrista melanoleuca, n sp

Head white, thorax white, spotted with black, abdomen white, the extremity blackish in male. Fore wing white, the basal costal area suffused with black, a subbasal series of black spots and two medial series, a broad irregular submarginal band with denticulate edges, sending a streak along inner margin towards the base. Hind wing white, with traces of medial and submarginal maculate bands. Hab Sikhim (Moller). Exp. 36 millim. Type in coll. Elwes.

1479 Miltochrista trimacula, Hmpsn Ill Het ix, p 85, pl 157, figs 27, 28

J. Fuscous brown, head, collar, and base of patagia orange Fore wing with black spots at base, middle, and end of cell, traces of a curved postmedial line

2 Thorax and ground-colour of fore wing yellow, the post-

medial line slightly more distinct, anal tuft greyish

Hab Ceylon Esp, & 18, 2 20 millim

Genus TRICHOLEPIS

Tricholepis, Hmpsn Ill Het viii, p 44 (1891)

Type, T erubescens, Hmpsn Range Nilgiris, Ceylon

Palpi very minute Antennæ ciliated in both sexes, the cilia longer in male than female Abdomen of female with a large anal tuft Wings covered with hair-like scales, fore wing long, the apex produced and rounded, the outer margin very oblique, veins 7, 8, 9 stalked, 11 anastomosing with 12 Hind wing with vein 3 from before angle of cell, 5 from above angle, 6 and 7 stalked, 8 from beyond middle of cell

SECT I Hind tibiæ with a terminal pair of spurs

1480 Tricholepis erubescens, Hmpsn Ill Het viii, p 44, pl 139, figs 3, 12



Fig 74 — Tricholepis erubescens, d +

d Head and thorax scarlet, abdomen and wings black Fore wing with the basal area scarlet, extending along the costa to the middle, disk slightly suffused with scarlet

2 The anal tuft ochreous, fore wing much more suffused with scarlet, the cults scarlet Larva thickly clothed with short brown hair Hab Nilgiri plateau Evp 20 millim

SECT II Hind tibiæ with two pairs of spurs

- 1481 Tricholepis uniformis, Hmpsn Ill Het ix, p 86, pl 157, fig 29
- Q Pale brownish fuscous, the vertex of head yellowish, anal tuft ochreous Wings semihyaline, fore wing with a yellowish tinge

Hab Newera Ellia, Ceylon Exp 24 millim

Genus MACHÆROPHORA

Machanophora, Hmpsn Ill Het 1x, p 86 (1893)

Type, M fulvipuncta, Hmpsn

Range Cevlon

3 Antennæ bipectinate, the branches very short Fore tibia with a short curved spine, mid and hind tibiæ with rather long terminal pairs of spurs Wings covered with scales and hair Fore wing with veins 7, 8, 9 stalked, 11 arising from 10, then anastomosing with 12 Hind wing with veins 3 and 4 stalked, 6 and 7 on a very long stalk, 8 from near end of cell

1482 Machærophora fulvipuncta, *Hmpsn Ill Het* 1x, p 86, pl 159, fig 10



Fig 75 — Machærophora fulvipuncta, 3 1

d Head, collar, and tegulæ orangeyellow, thorax dark brown, with a few orange scales Abdomen and wings very dark brown, fore wing with a dusky yellow patch at centre of inner margin

The female, Mr E E Green informs

me, is apterous

Hab Maskelyia, Ceylon Evp 20 millim

Genus XANTHOCRASPEDA, nov

Type, X marginata, Wlk

Range S India

Palpi minute and porrect Antennæ of male with long cilia Tibiæ with the spurs of moderate length. Fore wing with vein 3 from before angle of cell, 4 and 5 from angle, 6 from upper angle, 7, 8, 9 stalked 11 anastomosing with 12. Hind wing with vein 3 from before angle of cell, 5 from above the angle, 6 and 7 stalked, 8 from near end of cell

1483 Xanthocraspeda marginata, Will Cat XXXI, p 274, C & S no 721



Fig 76—Xanthocraspeda marginata, 3 }

3 Head, thorax and abdomen bright yellow Wings dark reddish brown, fore wing with the central portion of costa and basal three-fourths of inner margin yellow Hind wing with the inner margin and chia towards anal angle yellow

Hab Combatore Eap 22 millim

Genus THUMATHA

Thumatha, Wlk Cat xxxv, p 1900 (1866)

Type, T fuscescens, Wlk Range Ceylon, Australia

Palpi porrect and slender Antennæ bipectinated in male Tibiæ with the spurs long Fore wing short and broad, veins 3, 4, 5 from close to end of cell, 6 from below upper angle, 7, 8, 9 stalked, 11 anastomosing with 12 Hind wing with veins 3 and 4 stalked, 5 from angle of cell, 6 and 7 stalked, 8 from beyond the middle of cell

1484 Thumatha fuscescens, Wlk Cat xxxv, p 1901, Hmpsn Ill Het ix pl 158, fig 18

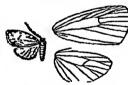


Fig 77—Thumatha fuscescens, of ?

of Pale reddish brown Fore wing with traces of ante- and postmedial waved lines, a black spot at end of cell, a spot on the costa before the apex, series of submarginal and marginal specks

Hab Ceylon, Moreton Bay, Australia

Erp 16 millim

Genus NUDARIA

Nudaria, Haw Lep Brit p 156 (1803) Rhanghana, Moore, P Z S 1878, p 22

Type, N mundana, Linn, from Europe
Range Europe, Africa, throughout India, Burma, Australia
Palpi minute and porrect Antennæ with the basal joint
swollen and large Tibiæ with the spurs rather short Fore
wing with the cell long, veins 9 and 11 present, vein 5, when
present, often comes from the middle of discocellulars in male, but
is curved, not straight as in the Geometridæ Hind wing with
vein 3 from before angle of cell, 5 from above angle, 6 and 7 on a
long stalk, 8 from near end of cell

SECT I Fore wing with vein 5 absent, 6 from below angle of cell

A Fore wing with veins 7, 8, 9 stalked, antennæ of male with the cilia minute

1485 Nudaria apicalis, Will Cat ii, p 521

d Fulvous yellow Fore wing with a black speck at base of costa, a subbasal black spot, another at end of cell Hind wing paler

In the type from China the anal tuft is black Hab China, Burma Evp 20 millim

B Fore wing with veins 7, 8, 9 from angle of cell, antennæ of male with the cilia long

1486 Nudaria suffusa, n sp

d Ochreous white, the wings suffused with fuscous Fore wing with whitish patches at centre of costa, apex, centre of outer margin, and outer angle Hind wing with the clus pale Hab Sikhim Evp 18 millim Type in coll Elwes

SECT II Fore wing with vein 5 present, 6 absent, 7, 8, 9 stalked

1487 Nudaria fasciata, Moore, P Z S 1878, p 36, C & S no 722

d Pale ochreous Fore wing with the costal area suffused with dark red-brown, postmedial and apical strize on the costa; traces of a postmedial oblique fuscous line, a marginal series of specks

Hab Sikhim, 10,000 feet Exp 25 millim

1488 Nudaria margaritacea, Will Cat xxxi, p 275, C & S no 724
Nudaria margaritaria, Will Cat xxxi, p 275, C & S no 725

White Fore wing with the basal part of the costa black, a basal speck, antemedial, postmedial, and submarginal angulated



Fig 78—Nudaria margaritacea, 3 1

fuscous lines, the last sending a spur to centre of outer margin Hind wing with an indistinct fuscous spot on centre of costa

Hab Sikhim Exp 25 millim

1489 Nudaria coavestis, n sp

d Head, thorax, and abdomen pale ochreous Fore wing pale semidiaphanous ochreous, with a straight antemedial hvaline band, a hyaline ring-spot at end of cell and curved postmedial band Hind wing whitish byaline

Hab Sikhim (Elwes) Exp 20 millim Type in coll Elwes

SECT III. (Rhanghana) Fore wing with vein 5 absent, 6 stalked with 7, 8, 9

- *1490 Nudaria punctata, Moore, P Z S 1878, p 22, pl 2, fig 12, C & S no 606
- Q Pale ochreous buff Fore wing with nine small black maiginal spots, underside paler

 Hab Calcutta Exp 30 millim

Genus PALÆOPSIS

Palæopsis, Hmpsn Ill Het 12, p 86 (1893)

Type, P diaphanella, Hmpsu Range Nága Hills, Ceylon

Palpi short and porrect, the first two joints fringed with long hairs. Antennæ with the basal joint swollen and fringed with long scales, the medial spuis of hind tibiæ very short. Fore wing with the cell nearly reaching the apex, vein 5 from near centre of discocellulars, 6, 9, and 11 absent. Hind wing with vein 3 from before angle of cell, 5 from above the angle, 6 and 7 stalked, 8 from near end of cell

1491 Palæopsis diaphanella, Hmpsn Ill Het 12, p 87, pl 158, fig 8



Fig 79 — Palæopsis diaphanella, & }

White, the wings semidiaphanous Fore wing with subbasal and antemedial brown spots on the costa, a postmedial spot from which runs a waved line to inner margin, an indistinct patch beyond the cell and three large submarginal spots

Hab Naga Hills, Ceylon Enp 14 millim

Genus SCHISTOPHLEPS

Schistophleps, Ampsn Ill Het viii p 53 (1891)

Type, S bipuncta, Hinpsin
Range Naga Hills, Nilgiris, Ceylon
Palpi slight and poinect Antennæ with the basal joint swollen

and clothed with long scales Tibiæ with the spurs rather short Fore wing with vein 3 from before angle of cell, 5 from near centre of discocellulars, 6 from upper angle, 7, 8 and 9, 10 stalked, 11 anastomosing with 12, 3 veinlets between 12 and the costa Hind wing with vein 3 from before angle of cell, 5 from above angle, 6 and 7 stalked, 8 from near end of cell

1492 Schistophleps bipuncta, Hmpsn Ill Het viii, p 54, pl 140, fig 23

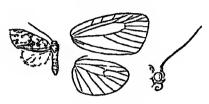


Fig 80 Schistophleps bipuncta, &

Ochreous semidiaphanous white Fore wing with an indistinct antemedial rufous line, with some fuscous suffusion on its inner edge, black specks at centre and end of cell, the postmedial discal area suffused with rufous, a series of indistinct submarginal streaks and marginal specks Hind wing hyaline

Hab Nága Hills, Nilgiis, Ceylon Eap 21 millim

Genus CHAMAITA

Chamaita, Wilh Journ Linn Soc vi, p 121 (1862) Homopsyche, Butl A M N H (5) x, p 226 (1882)

Type, C trichopter ordes, Wlk, from Borneo

Range Nága Hills, Assam, Ceylon, Borneo, New Britain Palpi slight and porrect Antennæ with the basal joint thickened and very long Tibiæ with the spurs rather short Fore wing with the costa barry and highly arched, in C trichopter ordes the cell in the male is covered by a fringe of hair arising from the subcostal nervure, of the Indian species the males are unknown, vern 3 from before angle of cell, 5 from near centre of discocellulars, 6 from below upper angle, 7 and 8 stalked, 9 absent, 11 not anastomosing with 12 Hind wing with vern 3 from before angle of cell, 5 from above angle, 6 and 7 stalked, 8 from middle of cell

SECT I Fore wing with vein 10 absent

1493 Chamaita neuropteroides, n sp

Q Head and thorax white, with a fulvous tinge, abdomen white Wings semidiaphanous white, fore wing with indistinct antemedial and medial waved fulvous lines, and submarginal and marginal series of specks

Hab Marghanta, Assam, Nágas (Doherty) Erp 20 millim

Type in coll Elwes

SECT II Fore wing with vein 10 present

1494 Chamaita nympha, Moore, Lep Ceyl 111 p 536, pl 211, fig 11

Q Differs from new opteroides in having a fulvous spot at centre of cell of tore wing



Fig 81 — Chamaita nympha, Q

Hab Ceylon Evp 18 millim

Genus CACYPARIS

Cacyparis, Wlk Cat xxvi, p 1572 (1862) Ballatha, Wlk Cat xxxiv, p 1214 (1865)

Type, C insolitata, Wlk

Range Throughout India, Burma, and Ceylon, Solomons

Palpi upturned, the 3rd joint very long, slender, and knobbed at the end. Antennæ fasciculate in male. Fore wing broad, the apex acute, veins 3, 4, 5 from near angle of cell, 6 from upper angle, 9 arising from 10 and anastomosing with 8 to form the areole. Hind wing with veins 3 and 4 from angle of cell, 5 from above the angle, 6 and 7 from upper angle, 8 from before middle of cell.

1495 Cacyparis insolitata, Will Cat xxvi, p 1572, Moore, Lep Ceyl iii pl 198, figs 5, 5 a, C & S no 3547 Ballatha atrotumens, Will Cat xxxiv, p 1215

Head and thorax purplish grey Fore wing purplish grey, the basal area suffused with silver scales and bounded by an ill-defined

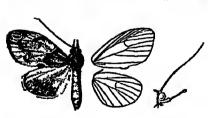


Fig 82
Cacyparis insolitata, 3

silvery band, a silver band on discocellulars, a postmedial curved silver band with a spot of raised shining black scales on the inner margin just within it, an oval black subapical spot ringed with ochreous and bisected by an ochreous line, with an oblique silver line from the costa to its inner edge, cilia silvery. Hind wing ochreous,

suffused with fuscous, except the costal area Abdomen yellow, suffused with fuscous

Hab Nilgiris, Ceylon. Exp, & 32, ♀ 36 millim

1496 Cacyparis læta, Will Cat xxxiv, p 1215, C & S no 3548

Head, thorax, and abdomen pale red-brown Fore wing grey, suffused with red-brown, except at apex, two dark specks in end of cell, traces near inner margin of dark medial, postmedial, and submarginal lines Hind wing bright yellow Underside bright yellow, the whole fore wing suffused with smoky black, except the apex and a streak from the base to centre of costa

Hab Moulmein Exp 24 millim

1497 Cacyparis prunifera, Swinh MS

A Head and thorax mottled dark and pale brown Tegulæ with tuits of long white hairs and scales arising from beneath them Thorax with the ground-colour white, closely striated all over with dark purplish brown, a broken lumilate antemedial chocolate band, a large oval chocolate mark beyond the cell, with a pale outer edge, some orange marks on its inner edge, and plum-coloured dashes forming its centre, some purplish marks on the outer margin Abdomen and hind wing fuscous

Hab Sikhim, Ceylon Eap 40 millim Type in Mus Oxon

Genus CHANDICA

Chandica, Moore, Lep Ath p 286 (1888)

Type, C quadripennis, Moore

Range Sikhim, Borneo

Palpi upturned, reaching vertex of head, the 3rd joint short Antennæ minutely ciliated in male. Fore wing very bload, veins 3, 4, 5 from close to augle of cell, 6 from below upper angle, 7 and 8 stalked. Hind wing subquadrate, the outer margin slightly excised, veins 3, 4, 5 stalked and much curved, 6 and 7 from upper angle, 8 from middle of cell.

1498 Chandica quadripennis, Moore, Lep Ath p 286

d Head, collar, and legs canary-yellow, slightly marked with red-brown, thorax ferruginous red, suffused with brown Fore



Fig 83 Chandica quadripennis, of

medial, and curved and dentate postmedial lines, the latter with a diffused dark streak on its upper portion, the costa and outer margin with irregular canary-yellow bands, with some brown suffusion on their inner edges, some brown specks on Abdomen and hind wing whitish.

wing ferruginous red, crossed by indistinct nearly straight ante-

outer margin below the aper Abdomen and hind wing whitish, slightly suffused with pink and fuscous

Hab Sikhim, Borneo Exp 30 million

Subfamily NYCTEOLINÆ.

A group of Arctudæ, many of them coloured green, frequenting trees and shrubs The apex of the fore wing is more or less

produced to a point *

Larva Eight pairs of legs fleshy, with the anal somite tapering to a point Hahas is smooth, the anal prolegs long, and feeds in the open, Earras is spaisely covered with hair, has the anal claspers short, and feeds among rolled-up leaves

Key to the Genera

a Fore wing with an areole a' Fore wing with vein 10 anastomosing with 7, 8, 9 to form the areole 1 SINNA, p 128 b' Fore wing with vein 9 anastomosing with 8 to form the areole 6 PARACRAMA, p 134 b Fore wing with no areole a' Fore wing with veins 7, 8, 9, 10 stalked a² Hind wing with vein 5 absent
b² Hind wing with vein 5 piesent
b' Fore wing with veins 7, 8, 9 stalked, 3 TYANA, p 130 4 HALIAS, p 132 10 from cell a² Palpi upturned b² Palpi porrect and very long EARIAS, p 132 9 Topadesa, p 137 c' Fore wing with veins 8, 9, 10 stalked, 7 from cell

a² Palpr with the 3rd joint naked a3 Hind wing with the outer margin rounded 2 Ariolica, p 129 b3 Hind wing with the outer margin angled 7 Siglophora, p 135 b2 Palpi with the 3rd joint fringed with scales on the inside 8 GABALA, p 136

Genus SINNA

Sinna, W7k Cat xxxii, p 641 (1865) Teinopyga, Feld Reis Nov p 9, pl 106, fig 18 (1875)

Type, S_calospila, Wlk, from Java

Range Japan, China, Assam, Java, Sumatra

Palpi porrectly upturned, the 3rd joint slender and long Antennæ simple Tibiæ with the spurs long Fore wing with the apex subquadrate, veins 3, 4, 5 from near lower angle of cell, 6 from upper angle, 7 forming a small areole with 8, which gives off 9 and 10 Hind wing with veins 3 and 4 from lower angle of cell, 5 from above angle, 6 and 7 from upper angle, 8 from before middle of cell

^{*} The Nyctcolina approach the Acoptina in the structure of vein 8 of the hind wing in some forms, but their tree-frequenting habits are very different

1499 Sinna dohertyi, Elw P Z S 1890, p. 400, pl 33, fig 5

d Head, thorax, and abdomen white, palpi orange, tipped with black, collar, tegulæ, and metathorax marked with orange. Fore wing white, the basal two-thirds with reticulated dark crimson

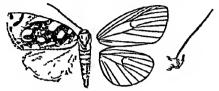


Fig 84 -Sinna dohertyi, & 1

markings, a yellow streak on middle of inner margin, an obliquely curved postmedial orange band ending at outer angle, an oblique black subapical streak and series of black marginal spots Hind wing white

Q The streak on inner margin of fore wing crimson, the subapical streak divided into two spots, palpi white, thorax marked with crimson

Hab Naga Hills, Margharita, Assam Exp, & 37, Q 42 millim

Genus ARIOLICA

Ariolica, Wlk Journ Linn Soc vii, p 53 (1864) Chiodomeia, Butl Trans Ent Soc 1881, p 18

Type, A lineolata, Wlk, from Borneo

Range Japan, Sikhim, Khásis, Burma, Borneo

Palpi upturned, the 2nd joint reaching vertex of head, the 3rd joint long Antennæ simple Tibiæ with the spurs long Fore wing with the apex rounded, veins 3, 4, 5 from close to lower angle of cell, 6 and 7 from the upper angle, 8, 9, 10 stalked Hind wing with veins 3 and 4 stalked or from cell, 5 from middle of discocellulars, 6 and 7 stalked, 8 from before middle of cell.

*1500 Ariolica tilangulifera, Moore, Lep Ath p 285

Head yellow, thorax and abdomen white Fore wing bright yellow, with a white patch at base edged by a reddish streak, a white spot below centre of costa, the whole outer area, except the costa, reddish purple, with a series of white submarginal spots, the spot at middle large and triangular

Hab Cherr Punji Erp 22 millim

1501 Anolica superba, Mome, P Z S 1867, p 668, pl 33, fig 15, C S S no 510

d Head orange or white, thour and abdomen white Fore wing silvery white, a black spot on costa at base, the costa black in some specimens, an orange fascia below it, an antemedial slightly waved orange Land with some black scales on its outer edge, an oblique waved band from costa beyond the middle to

Aor II

outer angle, wide at costa and outer angle and bearing a white spot below the costa, a triangular orange mark on middle of outer margin, cilia dark at apex. Hind wing white

Hab Sikhim Evp 32 millim



Fig 85 -Ariolica superba, & }

1502 Ariolica pulchella, Elwes, P Z S 1890, p 387, pl 32, fig 15

Differs from superba in the markings of the fore wing being olive-yellow, no black basal spot on the costa, the antemedial band much broader as also is the oblique band, the subapical patch being much reduced

Hab. Sikhim, E Pegu Erp 26-30 millim.

Genus TYANA

Tyana, Wil Cat xxxv, p 1776 (1866)

Type, T callichlora, Wlk

Range Nepal, Sikhim, Bhutan

Palpi porrect and slender Antennæ minutely ciliated Fore wing with the apex produced and acute, veins 3, 4, 5 from near angle of cell, 6 from upper angle, 7, 8, 9, 10 stalked Hind wing with the apex acute, veins 3 and 4 from angle of cell, 5 absent, 6 and 7 from upper angle, 8 from middle of cell

SECT I Hind wing of male with a fold on the inner margin containing flocculent masses of hair

1503 Tyana callichlora, Wik Cat xxxv, p 1776, Butl Ill Het vi, pl 105, figs 2, 3, C & S no 504

of Head pale red-brown, the frons and vertex white, palpi with a yellow ring, collar and tegulæ white, thorax green, fringed

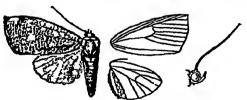


Fig 86 - Tyana callichlora, & }

with red-brown scales, a pair of white spots on metathorax Fore wing green, with slight yellowish striæ, a white spot outlined with red-brown at base, costa pale, a red-brown spot at origin of

131 TYANA

vem 2, outer margin with a series of small white specks on a narrow red-brown band Abdomen and hind wing whitish, with a

vellowish-fuscous tinge

Fore wing with the yellowish striæ much more prominent. an antemedial red-brown spot on the costa variable in size or sometimes absent, the spot at origin of vein 2 larger, a broad marginal red-brown band, widest at middle and outer angle Abdomen and hind wing pure white

Exp, of 40, Ω 36 millim Hab Sikhim

1504 Tyana pustulifera, Will Cat xxxv, p 1773, Butl Ill Het vi, pl 105, fig 7, C & S no 508 Tyana flatoides, Moore, Lep Atk p 285

Differs from callichlora in the vertex of head, collar, and tegulæ being yellow with red markings, metathorax without white specks Fore wing more acute at apex, uniform green, without yellow strim or red and white markings, except a white spot at base outlined with red and the costa pale, cilia yellow.

Q with a yellow red-ringed spot at end of cell of fore wing

variable in size and sometimes with a brown dot below it

The form flatoides has a large red-brown patch on the fore wing from lower angle of cell to inner margin, some specimens having a white spot at its apex

Hab Nepal Exp, 344, 938-46 millim

SECT II Hind wing of male without the fold and gland on inner margin

1505 Tyana chloroleuca, Wik Cat xxxv, p 1777, Butl Ill Het vi, pl 105, figs 5, 6, C & S no 505
Tyana speculatrix, Butl A M N H (5) vi, 1880, p 64, C & S

Tyana lancina, Butl A M N H (5) vi, 1880, p 65, C & S

Differs from pustulifera in the head, collar, and tegulæ being Fore wing with the basal patch yellow, only slightly outlined with red Abdomen and hind wing pure white in both sexes

The form speculatrix has a large red-brown patch at lower angle of cell with two or three ochreous spots on it, in chloroleuca these are reduced to two red-brown specks, in lancing they are completely absent

Hab Sikhim, Bhutan Exp, 36, 938 millim

- 1506 Tyana falcata, Wlk Cat xxxv, p 1772, Butl III Het vi pl 105, fig 9, C & S no 506
- 2 Differs from chloroleuca in the head, collar, and tegulæ being green Fore wing uniform green, with two red-brown specks at angles of cell, costa darker, cilia slightly yellowish

Hab Sikhim Eap 34 millim

132 ARCTIDÆ

Genus HALIAS

Halias, Treitschke, Schmett Eur vii, p 227 (1829) Hylophila, Hubn Verz p 396 (1818), non descr Oloephora, Steph Syst Cat Brit Ins pt 2, p 168 (1829)

Type, H prasmana, Linn, from Europe Range Europe, Japan, Nága Hills

Palpi upturned, slender, and reaching above vertex of head Antennæ minutely ciliated Tibiæ with the spurs long Fore wing with the apex acute, veius 3, 4, 5 from close to angle of cell, 6 from upper angle, 7, 8, 9, 10 stalked Hind wing with veins 3 and 4 on a short stalk, 5 from lower angle of cell, 6 and 7 from upper angle, 8 from before middle of cell

1507 Halias orientalis, n sp

Head, thorax, and fore wing very pale green, the last with

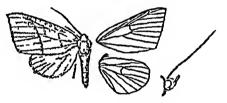


Fig 87 —Halias orientalis, Q

the costa yellowish, ante- and postmedial oblique yellow lines, cilia yellow Abdomen and hind wing white

Hab. Nága Hills, 6000 feet (Doherty) Erp 36 millim m coll Elwes

Genus EARIAS

Earnas, Hubn Verz p 395 (1818) Aphusia, Wik Cat xii, p 769 (1857) Digba, Wik Journ Linn Soc vi, p 198 (1862)

Type, E clorana, Linn, from Europe

Range Europe, Africa, Mauritius, Japan, China, throughout India, Burma, and Ceylon, Siam, Java, Australia
Palpi upturned, the 2nd joint reaching vertex of head, the 3rd porrect and varying in length Antennæ minutely ciliated in male Fore wing with veins 3, 4, 5 from near angle of cell, 6 from upper angle, 7, 8, 9 stalked Hind wing with veins 3 and 4 stalked, 5 absent, 6 and 7 from upper angle, 8 from centre of cell.

EARIAS 133

1508 Earias insulana, Boisd Faun Madag p 121, pl 16, fig 9
C & S no 500
Farias tristrigosa, Butl P Z S 1881, p 614, C & S no 503
Earias smaragdinana, Zell Lep Caffr, K Vet-Akad Handl 1852,
p 79
Earias fiondosana, Wik Cat xxvi, p 204
Earias simillima, Wik Cat xxvi, p 1775
Earias siliquana, Staint Trans Ent Soc (3) v, 1867, p 1xxxix
Earias gossypi, Frauenfeld, Verh zool-bot Ges Wien, 1867,
p 791
Earias biplaga, Wik Cat xxvv, p 1773

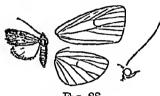


Fig 88
Earias insulana, d

Head, thorax, and fore wing peagreen, the last with three angled indistinct lines—medial, postmedial, and submarginal Hind wing semidiaphanous white the outer margin slightly fuscous below the apex

Some African specimens have the area between the first two lines of the fore wing filled in with fuscous brown towards inner margin

Hab Throughout Africa Mauritius, Baluchistan, N and S India Burma, Siam L_{ip} 22 millim

1509 Earnas fabia, Stoll, Ciam Pap Exot iv, pl 355, fig H Aphusia speiplena, Wik Cat vii, p 770, C & S no 502 Earnas hugeh, Rogenh Verk zool-bot Ges Wien, 1870, p 872, C & S no 501 Micra partita, Wik Cat vivin, p 799

Differs from *insulana* in the head and thorax being ochreous white, fore wing without lines but with broad white bands along costa and inner margin, leaving only the middle third green

Hab Punjab, Calcutta, Ganjam, S. India, Ceylon, JavaEip 32 millim

Earnas chromataria, Wil. Cat XVII, p 204, C & S no 499 Earnas limbana, Snell Tyd, Ent XVII, 1879, p 97, pl 8, fig 2 Frinas fervida, Wil. Cat XXV, p 1774 Earnas fulvidana, Wallengr Wien ent Mon 1863, p 143

Head and thorax pale green, palpi pinkish Fore wing pale green, the basal part of the costa suffused with pinkish yellow, two red-blown specks towards end of cell, an irregular brown marginal band with yellow on its inner edge. Abdomen and hind wing white

Hab Throughout Africa, India, and Ceylon, Japan, Java

 $E \iota p$ 20 millim

1511. Earias uninotata, Wik Journ Linn Soc vi, p 198
Earias annulifera, Wik Cat. xxxv, p 1774, Hmpsn Ill Het ix,
pl 157, fig 18
Earias sulphuraria, Moore, Lep Ceyl iii, p 490, pl 208, fig 10

Head, thorax, and fore wing bright canary-yellow, very indistinct ante- and postmedial greenish lines, the outer margin tinged with green, a brown annulus on the discocellulars Hind wing semidiaphanous white the apex suffused with yellow

In the variety sulphurana the markings of the fore wing are

almost entirely obsolete

Hab Nilgiris, Ceylon, Sumatra, Java Exp 20-24 millim

1512 Earias luteolaria, Hmpsn III Het vill, p 46, pl 139, fig 16

Q. Differs from uninotata, var sulphuraria, in the outer margin of the fore wing being narrowly red-brown, the cilia purplish

Hab. Nágas, Nilgiris, Ceylon. Exp. 26 millim

Genus PARACRAMA

Paracrama, Moore, Lep Ceyl 111, p 54 (1884)

Type, P dulcissima, Wlk

Range Nilgiris, Ceylon, Nága Hills, Andamans, Borneo

Palpi upturned, the 2nd and 3rd joints very long Antennas minutely cliated. Fore wing with veins 3, 4, 5 from near angle of cell, 6 from upper angle, 9 rising from 10 and anastomosing with 8 to form the arcole. Hind wing with veins 3 and 4 from angle of cell, 5 from above the angle, 6 and 7 from upper angle, 8 from before centre of cell.

1513 Paracrama dulcissima, Will Journ Lann Soc vii, p 76, Moore, Lep Ceyl iii, pl 150, fig 11, C & S no 1912 Paracrama rectomarginata, Hmpsn Ill Het viii, p 46, pl 189, fig 7

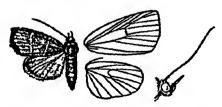


Fig 89 -- Paracrama dulcissima, d

Palpi and legs pink and brown, their inner surfaces white Antenne brown, head and thorax pea-green, abdomen white, suffused with pink. Fore wing pea-green, pale oblique ante- and postmedial lines, the latter angled below the costa, a pink patch

on inner margin near the base, costa pinkish purple, a marginal pinkish-purple band, narrowest at middle. Hind wing whitish, suffused with pink towards outer margin.

The form rectomarginata has the marginal purplish border of

the fore wing narrow, expanding into a patch at the apex

Hab Nágas, Nilgiris, Ceylon, Andamans, Borneo Exp. 325, 228-34 millim

1514 Paracrama saturata, Will Cat xxxIII, p 774, C & S no 1790
Paracrama olivacea, Hmpsn Ill Het 1x, p 87, pl 157, fig 17

Head pale red, thorax olive or bright glaucous green, abdomen fuscous, suffused with red towards extremity. Fore wing olive or bright glaucous green, the costa pale red, subbasal and postmedial pale waved lines, with darker green beyond the former and before the latter, a series of marginal black specks, cilia tipped with red. Hind wing smoky black, a dark red patch on middle of outer margin, cilia of apical half of wing red.

Hab. Ceylon. Exp 24 millim

Genus SIGLOPHORA

Siglophora, Butl P Z S 1892, p 123

Type, S bella, Butl Range Sikhim, Borneo

Palpi upturned, the 2nd joint reaching vertex of head, the 3rd short and porrect Antennæ minutely ciliated in male Fore wing with veins 3, 4, 5 from near angle of cell, 6 and 7 from upper angle, 8, 9, 10 stalked Hind wing with the outer margin angled at vein 3, veins 3 and 4 stalked, 5 from angle of cell, 6 and 7 from upper angle, 8 from centre of cell

1515 Siglophora sanguinolenta, Moore, Lep Atk p 285

d Head and thorax canary-yellow, spotted with red, abdomen ochreous, with reddish bands Fore wing canary-yellow, spotted

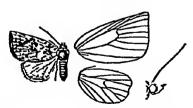


Fig 90 - Siglophora sangumolenta, &

with red, a purplish-brown subbasal band with waved red edges, a large purplish red-brown blotch occupying the whole outer half

136 ARCTIDÆ

of the wing except the costa Hind wing with the basal half white, the outer fuscous, chia pinkish Underside white, with a fuscous blotch on outer area of fore wing

Hab Sikhim Exp 26 millim

Genus GABALA

Gabala, Wlk Cat xxxiv, p 1220 (1865)

Type, G polyspilalis, Wlk

Range Japan, Sikhim, and throughout the Western Ghats and Malabar coast

Palpi upturned, the 1st joint very long and fringed with scales on its inner side, the 3rd short and fringed on both sides. Antennæ minutely cliated. The first segment of abdomen with paired corneous belt-like processes on the underside, each with a tuft of scales. Fore wing with the apex acute, outer margin angled at vein 5, vein 6 from below angle of cell, 7 from the angle, 8, 9, 10 stalked. Hind wing with the outer margin angled at vein 2, anal angle truncate, a large tuft of hair on inner margin, median nervure and vein 2 fringed with long bair, veins 3 and 4 stalked, 5 from above angle, 6 and 7 from upper angle of cell, 8 from centre of cell

1516 Gabala polyspilalis, Wik Cat xxxiv, p 1221, C & S no 2948

Head and thorax ochreous, tesselated with silvery-white spots, outlined in red-brown, abdomen ochreous, with a slight dorsal red-brown streak on first two segments. Fore wing red-brown,

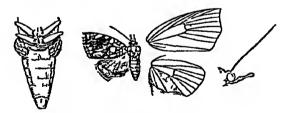


Fig 91 —Gabala polyspilalis, 3 1

some tesselated ochreous and white spots on basal area and at apex and outer margin, the veins at end of cell pale, a black postmedial streak above inner margin, some pale postmedial lunules centred with black on the disk, costa towards apex and chia bright yellow. Hind wing ochreous, sometimes suffused with fuscous, a marginal red line and the cilia red from apex to yein 2

Hab Sikhim and throughout the Western Ghats and Malabar coast. Exp 24 millim

TOPADESA 137

Genus TOPADESA

Topadesa, Moore, Lep Ath p 280 (1882)

Type, T sanguinea, Moore Range Sikhim

Palpi porrect, the 2nd joint angled, the 2nd and 3rd joints very long Antennæ minutely ciliated First segment of abdomen with very large paired corneous belt-like processes on the underside without tufts of scales. Fore wing with the costa arched near the base, the apex acute, the outer margin excurved at veins 2, 3, 4, veins 3, 4, 5 from near angle of cell, 6 from upper angle, 7, 8, 9 stalked. Hind wing with the apex acute, outer margin excurved at centre, veins 3 and 4 stalked, 5 from above angle of cell, 6 and 7 on a short stalk, 8 from centre of cell.

1517 Topadesa sanguinea, Moore, Lep Atk p 280, C & S no 4755

d Palpi red and yellow below, purplish brown above, abdomen fuscous Fore wing fiery red, suffused with brown, especially

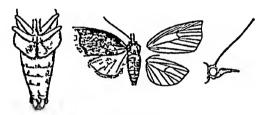


Fig 92 — Topadesa sanguinea, & 1

on costal area, a yellow basal streak on the costa, a white spot at end of cell on a vermilion patch, costa at apex, outer margin, and cilia bright canary-yellow Hind wing ochreous

Hab Sikhim Eap 28 millim

Subfamily NOLINÆ

The species of this group of Arctidæ are of small or moderate size, with buttons or ridges of raised scales on the fore wing, they live chiefly on the trunks of trees, and on the lichens growing there the larvæ feed *

Larvæ with eight pairs of legs and sparsely covered with hair

^{*} The Nolinæ approach closely the Noctuid subfamily Sarrothripinæ, from some of the forms of which they are hardly structurally separable

Key to the Genera

a Palpi porrect a' Fore wing with veins 9 and 10

absent

a2 Hind wing triangular, the outer margin straight

δ² Hind wing rounded

a³ Palpi of moderate length

b' Palpi very long b' Fore wing with veins 9 and 10

present b Palpi upturned

1 DELTAPTERUM, p 138

2 Nola, p 138

3 RHYNCHOPALPUS, p 142

4 Pisara, p 144

5 SELCA, p 146

Genus DELTAPTERUM, nov

Type, D peguense, Hmpsn

Range Burma

Palpi of moderate length, porrect, and thickly scaled Antenna of male fasciculate Mid tibiæ with one pair of spurs, hind tibiæ with two pairs Fore wing with veins 3, 4, 5 from lower angle of cell, 6 from upper angle, 7 and 8 stalked, 9 and 10 absent Hind wing triangular, the outer margin straight, anal angle slightly lobed, veins 3 and 4 from angle of cell, 5 absent, 6 and 7 from upper angle A longitudinal fold in cell of fore wing on underside.

1518 Deltapterum peguense, n sp

d Grey Fore wing with some black strie on the costs, very indistinct ante- and postmedial curved lines, two waved submar-

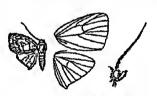


Fig 93 - Deltapterum pequense, &

ginal lines Hind wing white Underside of fore wing with black scales in the longitudinal fold

Exp 19 millim Type in Hab E Pegu, 4000 feet (Doherty) coll Elwes

Genus NOLA

Nola, Leach, Ediab Encyl ix, p 135 (1815) Rœselia, Hubn Verz p 397 (1818) Utaba, Wik Cat xxviu, p 448 (1863) Toxoloma, Feld Ress Nov p 9, pl 100, fig 16 (1875) NOLA 139

Tribunta, Will Cat XXXIV, p 1506 (1865)
Lebena, Will Cat XXXV, p 1901 (1866)
Minnagora, Will Cat XXXV, p 1902
Argyrophyes, Grote, Bull Buffalo Soc 1, 1874, p 175
Sorocosta, Rosenst A M N H (5) XVI, 1885, p 485

Type, N cucullatella, Linn, from Europe

Range Universally distributed

Palpi porrect, of moderate length, and thickly scaled Antennæ fasciculated in male Mid tibiæ with one pair of spurs, hind tibiæ with two pairs. Fore wing with vein 5 from angle of cell, 6 from upper angle, 7 and 8 stalked, 9 and 10 absent. Hind wing with vein 3 from before angle of cell, 5 absent, 6 and 7 stalked, 8 from middle of cell.

SECT I Fore wing with veins 3 and 4 stalked, palpi with the 3rd joint nearly naked

1519 Nola basimicans, n sp

d Fore wing with the basal half bright golden brown, the outer half grey, slightly recurved and irregular subbasal, medial, postmedial, and submarginal lines, a marginal line, two raised tufts of scales in the cell. Hind wing white, with a fuscous tinge towards outer margin. Underside of fore wing suffused with fuscous.

Hab E Pegu, 4000 feet (Doherty) Erp 13 millim Type in coll Elwes

SECT II Fore wing with veins 3 and 4 from cell, palpi with the 3rd joint heavily scaled

1520 Nola fragilis, Swinh Tians Ent Soc 1890, p 184

d Head, thorax, and abdomen white Fore wing white, an antemedial red and dark brown band from the costa ending in a point on vein 1, a broad medial red-brown band with irregularly placed patches of silver scales on it, an indistinct submarginal fuscous waved line, some fuscous suffusion on the margin. Hind wing white

Hab Rangoon Exp 14 millim

1521 Nola erythrostigmata, n sp

of White Fore wing with a basal dark patch, two red-brown spots on the costa, with a diffused fuscous band outwardly edged by a double waved line from below them to inner margin, a submarginal waved line. Hind wing white, with a slight fuscous suffusion and indistinct spot at end of cell. Underside of fore wing suffused with fuscous, hind wing with dark specks on the costa and distinct spot at end of cell.

Hab Nága Hills (Doherty) Eap 13 millim Type in coll

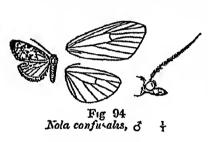
Elwes

1522 Nola denticulata, Moore, Lep Ath p 287

d Head, thorax, and abdomen white, vertex of thorax and basal segment of abdomen black above. Fore wing white, slightly suffused with brown, indistinct antemedial, medial, postmedial, and submarginal lines, the postmedial line denticulate, the others waved, the area between the subbasal and medial lines suffused with black, the basal two-thirds of wing irroiated with a few silvery-white scales. Hind wing white, with a slight fuscous tinge.

Hab Sikhim, Nágas Erp 32 millim

1523 Nola confusalis, Herr-Schaffer, Eur Schmett. 11, p 164 Rœselia sikkima, Moore, Lep Atk p 287



Head and thorax grey, irrorated with brown, abdomen pale fuscous. Fore wing white, suffused and irrorated with brown, some dark stræ on the costa, an indistinct angled antemedial line, a dark patch at middle of costa, an indistinct excurved double postmedial line; a waved submarginal line. Hind wing fuscous

Hab Europe, Sikhim, 7-10,000 feet. Exp 22 millim

1524 Nola grisalis, Hmpsn Ill Het ix, p 88, pl 158, fig 9

Differs from confusalis in having the palpi black at sides, a dark speck on the costa of fore wing near base, the medial patch reduced to a speck, the postmedial and submarginal lines to series of specks

Hab Ceylon E_1p 22 millim

1525. Nola angulata, Moore, P Z S 1888, p 393, Butl Ill Het vii, pl 122, fig 14
 Rœselia frateina, Moore, P Z S 1888, p 393

Differs from confusalis in having a dark basal patch on costa of fore wing, the antemedial line broad and evenly curved

Hab Dharmséla, Sikhim, Nilgiris, Ceylon Eap, & 16,

2 20 millim

1526 Nola astıgma, n sp

Differs from angulata in the fore wing being suffused with brown, the antemedial curved band more prominent, and with a diffused brown band inside it, the double postmedial waved line more prominent, the irregular submarginal line also more prominent, no dark medial patch on costa, the area between the

raised tufts in the cell depressed Underside of hind wing with a dark spot at end of cell

NOLA.

Hab Sikhim (Elwes), Nága Hills, 3000 feet, Manipur, 6000 feet (Doherty) Evp 21 millim Type in coll Elwes

1527 Nola ceylonica, Hmpsn Ill Het ix, p 88, pl 158, fig 13

d Head, thorax, and abdomen brownsh white Fore wing white, suffused with brown and irrorated with a few black scales, two medial black patches on the costa, the first with a waved line from it to inner margin, postmedial and submarginal nearly straight series of black specks. Hind wing pale fuscous

Hab Ceylon Exp 12 millim

1528 Nola pascua, Swinh P Z S 1885, p 293, pl 20, fig 6, Hmpsn

Ill Het 1x, pl 175, fig 9 (larva), C & S no 640

Differs from confusalis in having the ground-colour of body and wings pure white, a pale brown subbasal costal patch, large prominent medial and postmedial costal patches, the double curved postmedial and waved submarginal lines edged with dark scales

Larva Head brown, the first two somites reddish third to ninth yellow, broad black sublateral stripes on fourth to sixth somites continued as narrow lines to the ninth, the last two somites reddish, dorsal area darker, a purple lateral stripe, each somite with four to six fasciculi of short pale hairs. Feeds in fleshy shoots of Rubus, but spins in the open

Hab Nágas, Poona, Nilgiris, Ceylon Exp, & 14, Q 19 millim

1529 Nola tumulifera, Hmpsn Ill Het 1x, p 88, pl 158, fig 19

Differs from pascua in having the palpi blackish at sides, the basal half of costa of fore wing suffused with red-brown, the sub-basal and medial patches absent, the postmedial line single and consisting of a series of almost conjoined black specks, the sub-marginal waved line not edged with black scales. Hind wing very pale fuscous

Hab Ceylon Exp 17 millim

1530 Nola nigrifascia, Hmpsn Ill Het viii, p 48, pl 139, fig 15

Q Differs from tumulifera in having the palpi white at sides, the brown suffusion on the costa of fore wing absent, the postmedial line of black specks more curved and with some fuscous suffusion before it

Hab Nilgiris, Ceylon Erp 26 millim

- 1531 Nola hampsoni, Kuby, Cat Het p 376
 Nola minuta, Hmpsn Ill Het vin, p 48, pl 139, fig 14 (præocc)
 - d Head, thorax and abdomen pale brown Fore wing pale

brown irrorated with black scales, traces of subbasal, antemedial, and medial dark costal patches, of an antemedial waved line, and postmedial and submarginal series of specks. Hind wing pale fuscous

Hab Nágas, Margharita, Assam, Nilgiri plateau Exp 14 millim

1532 Nola lativittata, Moore, Lep Atl p 286

Head, thorax, and abdomen white Fore wing white, with a broad oblique brown band from the basal half of costa to inner margin beyond middle, two dark specks on it in the cell, a post-medial line joining the oblique band at inner margin, a short striga from costa before apex, a marginal bind widest at middle Hind wing white, the apical area suffused with pale brown

Hab Sikhim Erp 20 millim

1533 Nola major, Hmpsn Ill Het viii, p 48, pl 139, fig 13

Q Palpi black at sides, head and thorax greyish white, abdomen brownish fuscous, with pale segmental bands. Fore wing white or grey, a blackish basal patch on the costa, another at middle, traces of antemedial and medial lines, a dentate post-medial line sometimes reduced to specks on the nervules, an indistinct diffused waved submarginal band, some marginal suffusion and a series of black specks, cilia chequered pale and dark fuscous. Hind wing dark fuscous

Hab Nilgiris, western slopes, 3000 feet Exp 26 millim

1534 Nola negrita, n sp

d Uniform fuscous, fore wing with a doubly angled antemedial black line, a curved medial line, a deep black mark on the discocellulars, a doubly curved postmedial line

Hab Bangalore (Minchin) Exp 14 millim Type in coll

Druce

Genus RHYNCHOPALPUS

Rhynchopalpus, Hmpsn Ill Het 1x, p 89 (1893)

Type, R brunellus, Hmpsn

Range N W Himalayas, Sikhim, Naga Hills, Burma, Nilgiris,

Ceylon

Palpi long and porrect, the first two joints thickly scaled Antennæ heavily bipectinated in male. Mid tibiæ with one pair of spurs, hind tibiæ with two pairs. Fore wing with vein 3 from before angle of cell, 4 and 5 from the angle, 6 from upper angle, 7 and 8 stalked; 9 and 10 absent. Hind wing with vein 3 from before angle of cell; 5 absent, 6 and 7 stalked, 8 from middle of cell

SECT I Palpi very long

1535 Rhynchopalpus argentalis, Moore, P Z S 1867, p 89, C & S no 4500

Palpi black, the end of 2nd joint and 3rd white Head and thorax white, the latter spotted with black, abdomen pale fuscous Fore wing white, suffused with fuscous and irrorated with silvery scales, a large basal blackish patch, another on the central costal area, some marginal blackish suffusion, traces of



Fig 95 Rhynchopalpus argentalis, J †

antemedial, medial, postmedial, and submarginal waved lines Hind wing pale fuscous, a dark line on discocellulars, cilia of both wings chequered pale and dark fuscous, the tips dark

Larva pale yellow, the 1st and terminal somite orange, paired black dorsal spots on 3rd somite and single spots on 6th, 10th,

and 11th sountes, a tuft of reddish hair from behind the head, to which are attached the various cast skins of the head, the first moult at the apex and the others at intervals, thus mimicking a Coccid which lives on the same leaves and carries its exuviae on the anal segments. The tuft of hair with the exuviae of head is attached to the cocoon, which is spun on a twig and covered with scales of bark (Harfor d, Dudgeon)

Hab NW Himalavas, Sikhim Eip 34 millim

1536 Rhynchopalpus dentatus, n sp

Q Head, thorax, and abdomen whitish, thorax with the vertex more or less suffused with fuscous, abdomen with fuscous dorsal tufts. Fore wing pale brown, a broad fuscous medial band edged with black, the oibicular and remform spots formed by tufts of raised white scales, the band sends a long tooth outwards beyond the lower angle of cell and has a diffused white band beyond it, then a blackish band with a lumilate white line on its outer edge, a lumilate black marginal line, ciha fuscous, with pale streaks at the veins. Hind wing pale fuscous, a curved medial black line bent inwards below the cell

Hab Dalhousie (Harford) Erp 34 millim

1537 Rhynchopalpus brunellus, *Hmpsn Ill Het* 17, p 89, pl 158, fig 31

Head and thorax white, slightly irrorated with black, the collar sometimes brided with black, abdomen brownish white. Fore wing white, suffused with pale brown and irrorated with black, oblique ante- and postmedial series of black specks, a marginal series of specks, traces of a pile submarginal line, the brown suffusion deepest on costa before the postmedial specks and on the

margin, more prominent in some specimens than others Hind wing white or fuscous

Hab Nágas, Ceylon Exp 21 millim

1538 Rhynchopalpus fasciatus, n sp

Fore wing with an erect black somewhat Brownish grey nregular medial band, an inwardly oblique series of postmedial black specks on the nervules from the costa to vein 2, traces of a submarginal waved line, the nervules of the outer area fuscous Hind wing pale fuscous

Hab Naga Hills, 6000 feet (Doherty) Exp 13 millim Type

in coll Elwes

SECT II Palpi somewhat shorter

- 1539 Rhynchopalpus cingalesa, Moore, Lep Ceyl 11, p 66, pl 104, fig 1, C & S no 728 Roselia culaca, Swinh Trans Ent Soc 1891, p 137, pl 8,
- d Head, thorax, and abdomen white, palpi blackish at sides Fore wing white, a black spot on the costa at base, a curved antemedial line with dark spots on it at costa and middle of cell, a highly curved medial line joined at lower angle of cell by an erect line from the costa, traces of postmedial and submarginal waved nes Hind wing white, with a slight fuscous tinge Hab Nilgiris, Ceylon Exp 20 millim

Genus PISARA

Pisara, Wlk Jouin Linn Soc 1862, p 117

Type, P opalina, Wlk, from Borneo Range Ceylon, Burma, Borneo

Palpi porrect, thickly scaled, and of moderate length Antenna fasciculated in male Mid tibiæ with one pair of spurs, hind tibiæ with two pairs Fore wing with vein 3 from before end of cell, 4 and 5 from the end, 7, 8, 9 stalked IIInd wing with veins 3 and 4 stalked, 5 from angle of cell, 6 and 7 from upper angle, 8 from middle of cell

SECT I Fore wing with vein 6 present

- 1540 Pisara acontioides, Will Journ Linn Soc 1862, p 118
 - Fore Head and thorax pure white, abdomen pale fuscous ያ

PISARA 145

wing pure white, a large fuscous patch on the basal half of the

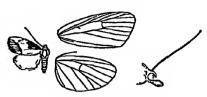


Fig 96 —Pisara acontioides, &

costa, a dark postmedial curved line, the area beyond it fuscous except at apex, tufts of opalescent scales on the basal patch, at and beyond the end of cell, on the postmedial line and marginal fuscous area. Hind wing white, the outer area suffused with fuscous

Hab Ceylon, Borneo Enp 18 millim

SECT II Fore wing with vein 6 absent

1541 Pisara lucidalis, Wik Cat NNI, p 245

Q Head and thorax pure white, abdomen whitish fuscous Fore wing white, a triangular subbasal brown patch on the costa, a medial band from the costa to vein 1, a postinedial band with waved outer edge, some reddish-brown suffusion on outer area, a fan-shaped tutt of long scales at end of cell. Hind wing white, a dark line on the discocellulars, the outer area suffused with fuscous

Hab Ceylon, Borneo Erp 16 millim

1542 Pisara rufescens, n sp

d Head, thorax, and abdomen white, the last with a fuscous tinge. Fore wing with the basal area white, the outer half from a point on the costa before the middle and on inner margin at the postmedial line suffused with rufous, the apen being pale, patches of purplish-grey scales at centre of costa and outer angle, a postmedial line excurved round end of cell. Hind wing pale reddish brown

Hab Rangoon (Scott) Exp 18 millim Type in B M

1543 Pisara laminata, Hmpsn Ill Het vin, p 75, pl 145, fig 5

Q Head and thorax white, abdomen fuscous, ringed with white Fore wing white, a brown and black basal patch on the costa, traces of an antemedial curved black line, a large black and brown triangular medial patch on the costa, suffused with raised metallic scales, a postmedial line highly excurved beyond the cell, the whole area beyond it—except the costal area, which has some pale brown marks on it—black, suffused with raised metallic scales. Hind wing and underside fuscous

Hab Nilgiris Erp 24 millim

1544 Pisara argyria, n sp

d Silvery white Fore wing with a black spot on base of vol II

costa, a large black-brown medial subtriangular costal patch, and black spot below end of cell, indistinct sinuous postmedial and submarginal lines, the area beyond the postmedial line rufous, except the costal portion Hind wing whitish, slightly suffused with fuscous towards apex

Hab Sikhim (Knyvett) Erp 26 millim Type in coll Knyvett

1545 Pisara semirufa, n sp

Head and collar white, thorax and abdomen rufous, suffused with white Fore wing with the base and outer half rufous, the medial area white; sinuous antemedial, postmedial, and submarginal dark lines, the two latter highly excurved beyond cell, the postmedial line with blackish suffusion inside it Hind wing pale ochreous

Hab Sikhim (Knyvett) Exp 22 millim Type in coll Knyvett

Genus SELCA

Selca, Wil. Cat valv, p 1218 (1865) Callinola, Butl Ill Het vii, p 33 (1889)

Type, S latifascialis, Wik, from Borneo

Range S America, Himalayas, Nága Hills, Borneo

Palpi upturned, not reaching vertex of head. Antennæ bipectinate. Mid tibiæ with one pair of spurs, hind tibiæ with two pairs. Fore wing with vein 3 from before angle of cell, 4 and 5 from the angle, 6 from upper angle, 7, 8, 9, 10 stalked. Hind wing with vein 5 from above angle of cell, 6 and 7 stalked, 8 from centre of cell.

SECT I Hind wing with veins 3 and 4 stalked, or 4 raiely absent, antennæ of male with the branches long

1546 Selca scripta, Moore, P Z S 1888, p 393, Butl Ill Het vn, pl 122, fig 13
Rœselia inscripta, Moore, Lep Ath p 287

d Head, thorax, and abdomen brownish grev Fore wing grey, a double antemedial brown and black line, a medial black



Fig 97 -Selca scripta, d

line consisting of black streaks on the nervules beyond the cell and a waved line below it, a double postmedial black and brown line, a series of submarginal specks on the veins, those nearest the apex and outer angle large Hind wing pale fuscous

Hab Kángra, Sikhim Eip 20 millim

SELCA 147

1547 Selca strigivena, n sp

d Differs from scripta in the head, thorax, and abdomen being pale brown. Fore wing with the cuived ante- and postmedial lines single and without the brown lines parallel to them, the medial hine less irregular, the submarginal line very indistinct and without the dark patches near apex and outer angle, the nervures of the outer area streaked with black

Hab Sikhim interior (Moller) Exp 31 millim Type in coll

Elwes

1548 Selca ascripta, n sp

d Fore wing grey, with a broad fuscous band along the costa from the base to near apex, where it expands into a large patch, sending a spur to outer margin above the centre and leaving the apex grey, traces of a waved postmedial line, a more distinct submarginal waved line Hind wing pale fuscous

Hab Naga Hills, 3000 teet (Doherty) Exp 28 millim Type

in coll Elwes

1549 Selca nitida, n sp

Q Head and thorax white, irrorated with brown, palpi and antennæ black. Fore wing silvery white, a black basal patch on the costa, an antemedial angled line with a blackish patch beyond it on the costa and a black spot in the cell, a postmedial line angled beyond the lower angle of cell, a submarginal dentate line starting from a black patch on the costa, the area between the ante- and postmedial lines slightly suffused with blown, a marginal black line, clua pale, streaked with black at the veins. Abdomen and hind wing fuscous

Hab Manipur, E Pegu (Doherty) Exp 22-29 millim Type

in coll Elwes

SECT II Hind wing with vein 4 absent, antennæ of male with the branches short

1550 Selca indistincta, n sp

of Fore wing grey, suffused with fuscous, traces of numerous waved dark lines. Hind wing pale fuscous. Underside fuscous, with a dark spot at end of cell of hind wing

Hab Nága Hills, 3000 feet (Doherty). Exp 17 millim Type

in coll Elwes

Species formerly recorded as Indian which are omitted

Cycnia sparsiguita, Wlk, C & S no 852 Type lost, description unrecognizable

Hypoprepia? hæmatopus, Feld, C & S no 630, is a Tinea.

Callimorpha venus, Prittwitz, C & S no 730, probably =

Eucyane amica, Cram, from Surinam

Pentacitrotus vulneratus, Butl, C & S no 733, is a Tinea

Cydosia punctella, Cram, C & S no 634, is a Tinea

Cydosia punctella, Cram, C & S no 634, is a Tinea

Barsine tripartita, Wlk, C & S no 708 Type lost, description
not recognizable

Spilosoma fusifrons, Wlk, C & S no 756 Type lost, description not recognizable

Family AGARISTIDÆ.

A family of day-flying or crepuscular moths of bright colours, with stout bodies, simple antennæ dilated distally, and the terminal joint of the palpi naked Proboscis present Legs with two pairs of spuis Frenulum present Fore wing with vein 1α



Fig 98—Larva of Zalissa transiens { (From Moore, Lep E I Co pl 13, fig 5)

separate from 1 b, 1 c absent, 5 from close to lower angle of cell Hind wing with two internal veins, 5 from the centre of discocellulars or absent, 8 bent down and touching 7 near the base Larvæ with lateral tufts of hair and long scattered hairs Pupa naked

Key to the Genera

- a Hind wing with vein 5 from the centie of the discocellulars
 - a' Fore wing with no areole b' Fore wing with an areole
 - a² Fore wing with vein 10 anastomosing with 8 to form the areole
 - b² Fore wing with vein 9 rising from 10 and anastomosing with 8 to form the areole
 - a³ Fore wing with vein 7 from end of areole, hind wing with ve n 2 from near end of cell
- 1 Eusemia, p 149
- [p 154 2 Chllonomorpha,
- 3 PHALENOIDES, p 154

 b³ Fore wing with vein 7 from after the areole, hind wing with vein 2 from long before end of cell

b Hind wing with vein 5 absent

a' Fore wing with vein 9 rising from 10 and anastomosing with 8 to form the areole

b' Fore wing with vein 10 anastomosing with 8 and 9 to form the arcole

4 ZALISSA, p 155

5 ÆGOCFRA, p 157

6 MINFUSFNIA, p 159

Genus EUSEMIA

Eusemia, Dalm Prodr Monog Castn p 26 (1825) Episteme, Hubn Verz p 179 (1818), gen non descr

Type, E lectrix, Linn, from China

Range Chinese, Indian, Ceylonese, and Malayan subregions
Palpi upturned, the terminal joint long and naked Antennæ
simple and dilated Fore wing with vein 5 from near angle of cell,
6 from upper angle, 7, 8, 9, 10 stalked. Hind wing with vein 5
from the centre of discocellulars

SECT I Fore wing with vein 3 from before end of cell Hind wing with veins 6 and 7 from end of cell

A Fore wing with yellow, hind wing with orange markings

1551 Eusemia proxima, Will Cat i p 50, C & S no 329

Head, thorax, and abdomen black, the last with the medial segment orange. Fore wing black, with an irregular oblique vellow medial band from veins 9 to 1, a postmedial narrow band from veins 9 to 5, two indistinct metallic-blue lines at middle and end of cell, male with an orange streak on the basal half of the costa. Hind wing black with a broad orange medial band, widest at the inner margin.

Hab Assam Exp 62 millim.

1552 Eusemia amatrix, Westw Cab Or Ent p 68, pl 33, fig 4, C & S no 311
Eusemia aruna, Moore, Lep E I Co p 288, C & S no 312

Differs from proxima in the abdomen being ringed with orange Fore wing shot with brilliant blue, the medial yellow band broken up into three irregularly placed spots, the postmedial band into four spots, cilia white at apex. Hind wing with a black spot on the orange band below the costa, the marginal area shot with blue, cilia white at apex in male, all white in temsle

Hab Sikhim Exp 75 millim.

1553 Eusemia pulchra, Butl A M N H (4) xv, 1875, p 148, pl 13, fig 4, C & S no 330

Differs from amatrix in having no blue sheen on either wing Fore wing with an outwardly oblique yellow band from the centre of the costa to near outer angle. Hind wing with the band orange-red, broader, and with no black spot on it, the black margin regular

Hab? Meerut Exp 70 millim

B. With no orange markings on the hind wing

1554 Eusemia vulcania, Butl Ent Mo Mag xii, 1875, p 123, C & S no 337

Fore wing as in amatrix, except that the four postmedial spots are white Hind wing black, shot with blue, the costs of both wings reddish brown in the male, cilia white at apex of fore wing and centre of hind wing Collar orange

Hab Burma. Exp 60 millim

C. With no yellow or orange markings

1555. Eusemia albomarginata, Moore, P Z S 1872, p 569, C & S no 310

Eusemia opheltes, Druce, P Z S 1885, p 518, Waterh Aid, n, pl 172, ing 5

Collar ringed with white, pectus fulvous Both wings entirely shot with blue, the outer margins and cilia white, male with an orange streak on basal part of costa of fore wing

Some specimens have white spots beyond the cell of fore wing, in the Burmese form opheltes the white margin is broader than in

the typical Andaman form

Hab Burma, Andamans Evp 75 millim.

SECT II Fore wing with vein 3 from end of cell Hind wing with veins 6 and 7 from end of cell

A. With no orange on hind wing

1556 Eusemia victrix, Westw Cab Or Ent pl 33, fig 3, C & S no 336
Eusemia silhetensis, Butl A M N H (4) xv, 1875, p 139, C & S no 332
Eusemia tyrianthma, Butl. Ent Mo Mag xii, 1875, p 116, C & S no 334.

Pectus orange, end of abdomen ringed black and orange, claspers in male black. Forewing black, with two blue patches at base, a

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blue spot at end of cell and blue streaks along the marginal nervules, two confluent yellow spots forming a medial band from below the costa to vein 1, a small postmedial white or yellow spot below the costa and two others on each side of vein 4 Hind wing black shot with blue, a broad marginal brilliant bue band

In the variety tyrianthina the two medial spots of the fore wing are separated and placed obliquely in silhetensis the postmedial spots are absent

Hab Throughout N E India from Nepal to Yunnan and Burma.

Exp 77-83 millim

1557 Eusemia orientalis, Butl A M N H (4) vv, 1875, p 139, ad Ill Het v, pl 82, fig 2, C & S no 327

Differs from victiv in there being four postmedial spots to the fore wing conjoined into a maculate band. Hind wing with the blue marginal band narrow; abdomen with the extremity orange, without a black ring

Hab Mussooree Elp 66 millim

B Hind wing with the basal two-thirds orange, broken by black patches

1558 Eusemia dentatrix, Westw Cab Or Ent p 68, pl 83, fig 5, C & S no 319

Differs from victria in the abdomen being ringed black and orange, collar and pectus orange. Hind wing with a broad orange medial band broken by a highly irregular black patch from the costa

Hab Nepal, Sikhim, Bhutan, Assam, Sylhet Evp 75 millim

SECT III Hind wing with veins 6 and 7 stalked Fore wing with blue spots near the base

A Hind wing black, with orange spots near anal angle

1559 Eusemia negrita, n sp

Collar black, tegulæ spotted with yellow, abdomen with orange segmental bands below, and on third and anal segments Fore wing with a broad medial nearly regular yellow band, the postmedial spots absent, the submarginal white spots obsolete towards outer angle, obsolescent towards the costa, the spot between veins 4 and 5 present Hind wing with a slight orange streak in the cell and on median nervure near the base; one orange spot near anal angle, the white spots obsolescent above

Hab Enlay, S Shan States (Manders) Exp 75 milim in coll Elwes

1560 Eusemia nigripennis, Bidl A M N H (4) vv, 1875, p 140, Moore, Lep Ceyl 11, pl 94, fig 3, C & S no 325

Collar and tegulæ yellow-spotted, abdomen with ventral yellow bands. Fore wing with a medial yellow band of two irregularly superposed spots, a maculate postmedial band from below the costa to vein 3, broken at vein 5, a submarginal series of six small white spots. Hind wing black, with four small white submarginal spots, and haidly a trace of the orange spots near anal angle.

Hab Ceylon Erp 80 millim

1561 Eusemia adulatrix, Koll Hugel's Kaschmu, iv, p 464, pl 20, fig 1, C & S no 308

Eusemia bellatiix, Westw Cab Or Ent p 67, C & S no 315

Eusemia afflicta, Butl Ent Mo Mag in, 1875, p 118, C & S no 309

Eusemia sectinotis, Butl Ent Mo Mag in, 1875, p 117, C & S no 331

Eusemia contracta, Butl Ent Mo Mag in, 1875, p 117, C & S no 318

Eusemia simplex, Butl Ent Mo Mag in, 1875, p 118, C & S no 333

The submarginal series of white spots on both wings larger than in nigripennis, the spots near anal angle of hind wing small and red in N-Indian, larger and orange in S-Indian, specimens, abdomen banded orange and black, the basal blue spots of the fore wing very variable in size, as also are the medial and postmedial spots

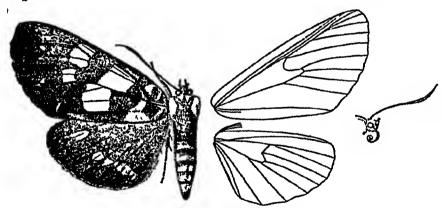


Fig 99 - Eusemia adulatrix, Q

In the form afflicta the postmedial spots are reduced in size, in sections the medial spots, and in contracta both medial and postmedial are reduced, in simplex the medial spots are narrow and regularly disposed, these variations occurring irrespective of locality

Hab The whole of India and Burma. Exp 80 milhm.

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B Hind wing with the basal two-thirds orange, broken by a black patch

1562 Eusemia maculatrix, Westw Nat Libi p 88, pl 2, fig 3, C & S no 324 (part)

Eusemia dives, Butl Ill Het v, p 18, C & S no 321

Eusemia nipalensis, Butl A M N H (4) v, 1875, p 140, C & S no 326

Differs from adulative in the medial spots of the fore wing being usually smaller and separated. Hind wing with the basal two-thirds orange, broken by a small mark below the costa and a large irregular patch near inner margin connected by a streak with the marginal band, which is widest at apex and with one to four white spots on it

The Sikhim form nipalensis has the hind wing orange-red, the black markings being more extensive in a form from E Tibet

Hab Himalayas, east of Nepal, Buima, Java Exp 80 millim

1563 Eusemia irenea, Boisd Rev Zool 1874, p 84, C & S no 323 Eusemia distincta, Butl A M N H (4) xv, 1875, p 140, id Ill Het v, pl 82, fig 3, C & S no 320

Differs from maculative in a white spot being more or less developed in the base of the cell, the medial spots yellow in distincta, white in venea, the lower spot sometimes being white, the upper yellow, the postmedial spots white, a marginal series of steel-blue marks increasing in size towards the apea, but sometimes almost obsolete Hind wing with the black margin broader Hab Sikhim, Khásis, Nágas, Sumatra Evp 75-91 millim

1564 Eusemia latimargo, Hmpsn Ill Het viii, p 45, pl 139, fig 24

Thorax with the spots white Fore wing with the medial spots yellow, the postmedial obsolete Hind wing with the basal area orange-red, the black margin broad

Hab Malabar coast Exp 75 millim

1565 Eusemia fasciatrix, Westw Cab Or Ent p 67, C & S no 324 (part)
Eusemia communicans, Will Cat xxxi, p 50, C & S no 316
Eusemia communis, Butl A M N H (4) av, 1875, p 140, pl 13, ing 1, C & S no 317

Abdomen ringed buff and black Fore wing with the medial and postmedial bands much reduced and very variable in size, either conjoined or separate, and white or buff, the submarginal series white Hind wing with the black patch on the orange band smaller, the black marginal area narrower

Hab Cachar, Assam, Nágas, Cambodia, Penang Evp 66

mıllım

1566. Eusemia vetula, Hubn Zutr no 329, figs 657, 658, C & S no 335

The submarginal series of spots on both wings buff Hab Java and Assam Exp 70 millim

Genus CHELONOMORPHA

Chelonomorpha, Motsch Et Ent 1x, p 30 (1860)

Type, C japona, Motsch, from Japan

Range Japan, Khási Hills

Differs from Eusemia, Sect I, in veins 9 and 10 of the fore wing arising separately from 7 and 8 and then anastomosing with them to form an areole

1567 Chelonomorpha austeni, Moore, Lep Ath p 11, C & S

Head and thorax black, tegulæ yellow, abdomen ringed orange and black. Fore wing black, two yellow spots in the cell, one below it, two beyond, and a submarginal series of small white spots, some metallic-blue scales on discocellulars. Hind wing

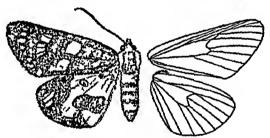


Fig 100 - Chelonomorpha austeni, 2

with a broad orange-yellow band, a black spot at end of cell, a geminate spot near anal angle, connected by a bar with the marginal black band which is wide at apex, some subapical white spots

Hab Khásis Erp 53 millim

Genus PHALÆNOIDES.

Phalmondes, Lewin, Lep N S Wales, p 2 (1822)

Type, P qlycince, from Australia

Range Tibet, NE India, Java, Ceram, New Guinea, Australia

Fore wing long and narrow Hind wing with vein 2 given off near end of cell Abdomen slender, male with an anal tuit of hair

1568 Phalenoides funebris, Moore, P Z S 1872, p 569, Waterh Aid, 11, pl 127, fig 4, C & S no 322

Head and thorax black, abdomen ringed black and orange Fore wing black, with a white speck at middle of cell, a spot at end of it, one beyond the cell, and another on vein 4, a curved series of metallic-blue specks near outer and inner margins, cilia white

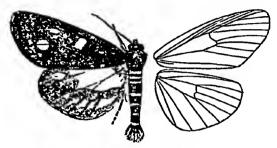


Fig 101 -Phalanoides funebris, of

Hind wing with the basal area white, the marginal area black, with a white subapical spot and series towards anal angle, cilia spotted with white

Hab Sikhim Exp 58 millim

Genus ZALISSA

Zalissa, Wik Cat xxxiii, p 936 (1865) Seudyra, Stretch, Cist Ent 11, p 19 (1875) Pimprana, Moore, Lep Ath p 41 (1882)

Type, Z catocalina, Wlk, from Australia

Range Japan, China, Himilayas, N Andamans, Sumatra, Java, Borneo, Australia India.

Palpi with the 3rd joint short, antennæ slightly dilated, abdomen with dorsal tufts, tibiæ moderately harry and not spined Fore wing with veins 3, 4, 5 from close to angle of cell, 6 from upper angle, 9 and 10 anastomosing with 7 and 8 to form the Hind wing as in Chelonomorpha

1569 Zalissa transiens, Will Cat vii, p 1588, Moore, Lep E I Co pl 13, figs 5, 5 a (laiva), C & S no 340 Eusemia regoceroides, Feld Reis Nov pl 107, fig 10, Boisd Rev Zool 1874, p 106 Seudyra dissimilis, Swinh Trans Ent Soc 1890, p 174

Head and thorax dark chestnut-brown, abdomen golden vellow. with a series of dorsal black spots. Fore wing dark chestnut marbled with grey, this colour forming an oblique band from costa to outer angle, or breular and remform outlined in grey Hind wing yellow, with a broad irregular black margin, some specimens with a black spot on discocellulars

Some specimens have the costa and cell of fore wing suffused with white

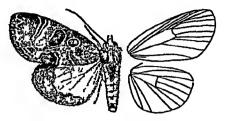


Fig 102 -- Zalissa transiens, d

Larva black, the first and eleventh somites yellow with black spots, lateral tufts of blue hairs and scattered long black hairs

Hab Sikhim, 2000-4000 feet, Khásis, Nágas, 6000 feet,
Burma, Java, Borneo Erp 50 millim

1570 Zalissa bala, Moore, P Z S 1865, p 795, C & S no 343

Differs from transiens in the grey marbling of fore wing being suffused with fuscous. Hind wing with a black spot at end of cell, the marginal band extending more round anal angle and suffused with yellow on the underside

Hab Sikhim, 7000-10,000 feet Exp 50 millim

- 1571 Zalissa venosa, Moore, P Z S 1879, p 389, Waterh Aid, 11, pl 131, fig 5, U & S no 341
- Tore wing wholly suffused with grev, except the apical and inner areas. Hind wing with a red-brown patch and submarginal orange line on the marginal band near anal angle, no cell-spot. Underside of both wings with a submarginal lumulate white line. Hab. Sikhim. Exp. 54 millim.
- 1572 Zalissa longipennis, WTh Cat Maii, p 934, Butl Ill Het v, pl 82, fig 8, C & S no 339
- d Hind wing with some yellow on the margin beyond the black band, which is widest at apex and anal angle. Underside of fore wing with the base yellow, the orbicular, remiform, and a patch below vein 2 black, the two former with white patches beyond them, the apex red-brown, hind wing with the marginal band obsolete and replaced by a reddish submarginal line, with some red suffusion beyond it

Hab Sikhim, low elevations, Manipur, Silhet, Nágas Evp

22 Zalissa exiguifascia
Phœgorista catocalina, Wll. Cat xxxv, p 1859 (præocc.), Butl
Ill Het v, pl 82, fig 9, C & S no 338

Differs from longipennis in the fore wings not being so grey

Hind wing with a spot at end of cell, the submarginal band wide near anal angle, obsolete towards apex. Underside of fore wing vellow, without the white patches, the red at apex less extensive, hind wing with the cell-spot prominent.

Hab Sikhim, 6000-8000 feet Erp 65 millim

1574 Zalissa albifascia, Wik Cat xxxiii, p 933, C & S no 2275

Differs from transiens in the orbicular and remiform spots of the fore wing being indistinct and not outlined with white, the patch beyond the cell large and sometimes pure white, the postmedial lines evenly curved, not oblique and angled, the marginal area not bluish grey towards anal angle, an indistinct waved submarginal line. Hind wing with the black band broadest at apex, its inner edge evenly curved, with a white patch on it at apex. Underside with the base of fore wing yellow, slight traces of the white patches in cell, white patches at apices of both wings.

Hab N Chun, Sikhim, Canara, Moulmein, Rangoon, An-

damans E_{1p} 60 milhm

*1575 Zalissa? nepcha, Moore, P Z S 1867, p 68, C & S no 2278

Head black, antennæ yellow, thorax rufous brown, abdomen or unge-vellow, with dorsal and lateral series of black-brown spots. Fore wing rufous brown, some uregular black marks on basal area a square white spot at end of cell, a narrow slightly curved postmedial white bind with black inner edge and series of dentate black marks beyond it, a marginal series of black and grey lunules cilia grey-brown. Hind wing orange-yellow, with a broad black marginal bind. Underside with the basal area yellow, the outer black, fore wing with a broad postmedial white band to near outer angle, where there is a white spot, hind wing with a white medial patch from costa to lower angle of cell.

Hab Sikhim Eip 70 millim

1576 Zalissa atkinsoni, Moore, Lep Ath p 42, pl 2, fig 11, C & S no 1740

d Head and thorax pale brown, abdomen black, yellow at sides and extremity. Fore wing rust-red, the basal and costal areas and a space beyond end of cell ochreous, orbicular and reniform spots indistinctly fuscous, submarginal and marginal series of grey specks. Hind wing black, the marginal area and cilia bright yellow. Underside with the costal and marginal areas of both wings yellow, the discal and inner areas black, two black spots in cell of fore wing, and one in that of hind wing

Hab Sikhim Exp 36 millim

Genus ÆGOCERA

-Fgocern, Lati Gen Crust Ins 1v, p 211 (1809)

Type & menete, Cram from Africa Range Ethiopian, Oriental, and Australasian regions Palpi with the 2nd joint clothed with long hair, antennæ strongly dilated distally Venation as in Zalissa, except that yein 5 of the hind wing is absent

SECT I Fore wing of male with the subcostal nervures distorted and enclosing below the costa a large hyaline streak, the membrane of which is dilated and ribbed, producing a clicking sound during flight, probably by friction on the greatlydeveloped spines of the mid tarsus

1577 Ægocera tripartita, Kirby, Proc Roy Dubl Soc II, 1880, p 340, Waterh Aid, 1, pl 39, C & S no 347

Palpi black, fringed with white, head white, thorax red-brown, the collar and tegulæ marked with white, abdomen yellow, with a black spot on the vertex of each segment. Fore wing ied-brown, thickly irrorated with grey scales, a broad longitudinal streak from the base broken into three spots. Hind wing yellow, with a black spot at the end of cell and a red-brown irregular outer margin, cilia whitish

Hab Plains of Burma Erp 37 millim

SECT II Fore wing of male without the costal vesicle

1578 Ægocera venulia, Cram Pap Erot 11, pl 165 D, C & S

Fore wing with the longitudinal white streak entire, and with

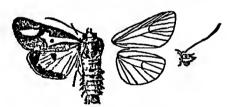


Fig 103 - Egocera venulia, &

an indenture on its upper edge and a small black spot near its lower edge, a red marginal line, cilia of both wings white

Hab The sub-Himalayan tracts of Kashmir and Sikhim, and plains of India, Ceylon, and Burma Evp 33 millim

1579 Ægocera bimacula, Wik Cat 1, p 57, Butl Ill Het 1, pl 5, fig 4, C & S no 345

Fore wing not so much irrorated with grey, a yellowish-white streak from the base expanding into a large spot in the cell and interspace below, and connected by a bar with a medial band from below the costa to the interno-median interspace (in Ceylon and S-Indian specimens these spots are generally disconnected), a

postmedial band from the costa to vein 3 Hind wing with a spot at each angle of the cell, the lower spot sometimes joined to the marginal band at anal angle

Hab The plains of India and Ceylon, Sikhim Eap 45 millim

1580 Ægocera accurata, Swinh P Z S 1889, p 401

Frons and thorax orange, abdomen with orange patches on the terminal segments. Fore wing black, with a white subbasal dot, an antemedial spot, a flask-shaped medial band from below the costa to above vein 1, a postmedial broader band from below the costa to vein 3, with its outer edge angled, cilia white at apex Hind wing black, with a large round central white spot, cilia white

Hab Burma Erp 53 millim

Genus MIMEUSEMIA

Mimeusemia, Butl A M N H (4) vv, p 397 (1875)

Type, M persimilis, Butl, from Japan Range Japan, India, Ceylon, Burma

Differs from Agocera in veins 9 and 10 of the fore wing both anastomosing with 7 and 8 to form the areole, and in the male claspers being large as in Eusemia

1581 Mimeusemia basalis, Will Cat 1, p 53, Butl Ill Het 1, pl 5, fig 2, C & S no 314

Head and thorax black, abdomen black, the terminal segments ringed with orange Foie wing black with a chestnut tinge, and crossed by four indistinct lines of metallic-blue scales, a large subbasal yellow spot, a postmedial yellow band from the costa to interno-median interspace, excurved beyond the cell Hind wing with a subbasal orange patch on the inner margin, a yellow spot at the end of cell

Hab Assam, Bengal Exp 58 millim

1582 Mimeusemia peshwa, Moore, Cat E I Co p 289, pl 7 a, fig 2, C & S no 328

Vertex of head, thorax, and patagia yellow, the whole abdomen ringed black and orange. Fore wing with a smaller yellow spot at base of cell, a large spot at lower angle of cell, a postmedial oblique spot from veins 9 to 3, cilia white at apex and outer angle. Hind wing with a large basal golden-yellow patch extending along the inner margin to near the anal angle, a large yellow spot beyond the cell from veins 7 to 3, cilia with the tips white at apex.

Hab Kangra, Sikhim Erp 58 millim

160

1583 Mimeusemia ceylonica, Hmpsn Ill Het ix, p 89, pl 157, fig 24

Differs from peshwa in the vertex of thorax being black, abdo-

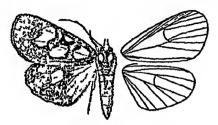


Fig 104 -Mimeusemia crylonica, of

men orange, with the basal segments black above, the fore wing with a small yellow spot at the upper angle of the cell

Hab Trincomali, Ceylon Exp 41 millim

1584 Mimeusemia albicilia, n sp

The markings of the head, thorax, and wings as in peshwa, except that the spots of the fore wing are larger and whiter, the cilia of hind wing wholly white, abdomen as in ceylonica

Hab Tilin, Yaw, Burma (Watson) Erp, of 48, 2 55 millim

Type in B M

Species formerly recorded as Indian which are omitted

Vithora indrasana, Moore, C & S no 344, is a Geometer Ægocera fimbria, Motsch, C & S no 346 = Æ fervida, Wlk, from Africa

Family NOCTUIDÆ.

A large family of moths consisting of closely allied subfamilies and genera, all are of completely noctuinal habits, except the Delioidina, which frequent low herbage. The neuration is extremely constant, so that it is only necessary to describe it when it varies from the normal type, which is Fore wing with yein 1 a slight and not anastomosing with 1 b, 1 c absent, 2 from middle of cell, 3, 4, 5 from close to lower angle, 6 from upper angle, 8 given off from 7 and anastomosing with 9, which is given off from 10 to form an areole, 11 from cell, 12 long. Hind wing with 1 a and b present, 1 c absent, 2 from middle of cell, 3 and 4 from lower angle, 5 from near lower angle or middle of discocellulars, rarely absent, but more or less aborted in the Acontrina and Trifina. Frequency always, proboscis almost always, present

Larvæ usually naked or slightly clothed with hair, rarely with thick tufts or spatulate filaments The lowest forms, the Sarrothripine, Stictopterine, Trifine, Palindine, Euteline, and almost all Gonopterinæ, have the four pairs of abdominal prolegs fully developed and are not semilooping, whilst in the Deltoiding and Acontina the first or first two pairs are sometimes obsolescent or absent. in the Quadriina and Focillina, which are semiloopers, the first or first two pairs are almost always rudimentary or absent The larve usually pupate in the earth without a cocoon, a cemented chamber being often formed, more rarely a cocoon is made amongst leaves, on bark, or on the surface of ground

Key to the Subfamilies

A Moths with the legs and especially the tarsal joints short and stout

a Hind wing with vein 5 obsolescent, from centre of discocellulars or (rarely) depressed at origin, no production of the outer margin at its termination

b Hind wing with vein 5 slightly more developed and always depressed at origin, no production of the outer margin at its termination

c Hind wing with vein 5 as strong as the other veins*, with a projection of the outer margin at its termination and almost always from or from near lower angle of cell or well below centre of discocellulars

a' Palpi not sickle-shaped, the 2nd joint being straight

Abdomen much longer than the hind wing

Abdomen without a large tubular anal tuft or paired tufts, stout, and with smooth scaling

b³. Abdomen with a large tubular anal tuft or paired tufts

b' Abdomen hardly longer than the hind wing t and tapering to extremity

Fore wing almost always with raised tufts or lines of scales

a4 Fore wing of nearly even width after the base

1 Trifinæ

2 Acontunæ

Gonopterinæ

5 Eutelinæ

4 Sarrothripinæ

^{*} Absent in a few Sarrothripina.

[†] Except in Batracharta, Sphingomorpha, and Lontha

- b' Fore wing increasing in width to outer margin, usually narrow and long, hind wing generally more or less hyaline at base
- b' Fore wing without raised tufts or lines of scales, increasing in width to outer margin*, and not hyaline at base

a' Palpi slender, with the 2nd joint not thickened, the scaling quite smooth

b' Palpi with the 2nd joint more or less thickened, the scaling usually hairy

b' Palpi sickle-shaped, the 2nd joint being curved

B Moths of slender build, with the legs and especially the tarsal joints long and slender

6 Stictopterinæ

3 Palinduna

8 Quadrifinæ

9 Focillina

10 Deltordinæ

Subfamily TRIFINÆ.

Fore wing with vein 6 from the upper angle of cell or rarely from above it, vein 8 given off from 7 and anastomosing with 9, which is given off from 10 to form the arcole †, or rarely vein 7 also anastomoses with 9 Hind wing with veins 3 and 4 from



Fig 105—Larva of Agrolis c nigrum } (From Hmpsn Ill Het 1x, pl 176, fig 4)

end of cell or rarely on a short stalk, 5 from centre of discocellulars, rarely slightly curved at origin, very slender and obsolescent, the outer margin not being produced at its termination ‡, veins 6 and 7 from angle of cell or rarely stalked

The following markings on the fore wing are very characteristic of the Noctuide and especially of the subfamily Trifine an orbicular or rounded stigma in the cell, a reniform or kidnev-shaped stigma just beyond it, and a claviform or elongate streak below the cell

Larvæ with four pairs of abdominal prolegs, not semilooping

^{*} Except Isocura, Dinumma, and Callyna

[†] Except in Arboricornus
† In Acutipenna vein 5 is more strongly developed and from near the lower angle of cell

Key to the Genera

A Town house		
A Eyes harry a Proboscis very slender b Proboscis fully developed	2	GLOTTULA, p 167
a' Abdomen without doisal tufts		
 a² Palpi porrect, very short and hairy b² Palpi obliquely upturned and smoothly 	3	POLYTELA, p 168
scaled a Fore wing with non-crenulate cilis	44	LEUCANIA, p 269
b ³ Fore wing with cremilate cilia c ² Palpi poriect, long, and the 2nd joint		ARCILASISA, p 282
clothed with long hair b' Abdomen with dorsal tufts	19 18	SEMIOPHORA, p 205 HADENA, p 198
B Eyes naked		
a Proboscis quite obsolete, from with a	_	_
corneous process	4	Rabila, p 169
b Proboscis fully developed		
a' Hind wing with vein 8 running close	7	9
along 7 to middle of cell	Ţ	Sрнетта, р 166
b' Hind wing with vein 8 rapidly diverg-		
ing from 7		
a ² Fore tible with a pair of strong curved		
terminal spines a^3 Mid and hind tibiæ without spines	10	CHARICLEA, p 176
b ³ Mid and hind tibue spined	îĭ	RAGHUVA, p 180
b ² Fore tibiæ without strong curved		23.10110 та, р 100
spines		
a ³ Mid and hind tibiæ spined		
a4 Fore tibiæ with a pair of slender		
terminal spines	9	Неглотнія, р 174
b4 Fore tibiæ strongly spined at mar-		
gins		
a ⁵ Fore wing broad, abdomen flat-	7.0	1 700
tened	12	
b ⁵ Fore wing long and narrow	17	HERMONASSA, p 196
c^4 Fore tible without spines a^5 Mid and hind tible with a few		
	Q	Anysma n 179
spines towards extremities b ³ Mid and hind tible strongly spined	U	ADISURA, p 173
a ⁶ Fore wing narrow, the apex sub-		
quadrate	14	EPILECTA, p 193
b ⁸ Fore wing broad, the apex more		, F
produced, and outer margin		
oblique	16	HYPFRNÆNIA, p 194
c ⁵ Mid and hind tibiæ without spines		
as Abdomen with dorsal tufts		
a^7 Collar with a high peak at	90	C 690
centre	20	CUCULIA, p 238
b ⁷ Collar normal, thorax with a large furrowed crest		
a ⁸ Palpi with the 3rd joint short		
and upturned	26	DIPTERYGIA, p 235
b ⁸ Palpi with the 3rd joint long	-	,,,
and porrect	27	Euscoria, p 237
-		м 2

c ⁷ Thorax with a slight tuft behind the collar and paired tufts on metathorax	•	
a ³ Palpi porrect b ³ Palpi upturned		Аиснык *, р 283
a ⁹ Palpi with the 2nd joint not reaching vertex of head, the 3rd short b ⁹ Palpi with the 2nd joint	21	EUPLENIA, p 207
reaching vertex of head, the 3rd long d Thorax without tufts behind	22	Ancara, p 223
the collar and only the meta-		
thoracic tufts as Fore tibiæ with large tufts of	•	
hair a ⁰ Fore wing with no tuft of sceles at outer angle	35	Spodoptera, p 248
6º Forewing with a tuft of scales at outer angle		
ate Hind wing with the outer margin slightly excised		<i>a</i>
below apex bio Hind wing with the outer	39	Callopistria, p 253
margin evenly curved b" Fore tibic smoothly scaled	40	ELUSA, p 257
a Hind wing with the disco- cellulars nearly straight b Hind wing with the disco-	34	PRODENIA, p 247
cellulars highly angled	36	Calogramma, p 240
e" Thorax without tufts a" Fore wing long and narrow	23	Мадива , р 226
b' Fore wing short and quadrate a' Fore wing with veins 8 and 9		
anastomosing to form an	38	Bernesa, p 252
b ^o Fore wing with veins 7, 8, 9, 10 stalked	41	Arboricornus, p 258
c ⁸ Fore wing short, but more pro- duced at apex b ⁶ Abdomen without dorsal tufts	37	Амчиа, p 250
a ⁷ Frons with a trilohate corneous process	31	Mudaria, p 245
b ⁷ Frons without a corneous process		
as Thorax with a high sharp crest behind the collai		
a Fore wing with the cilia slightly crenulate, the palpi		
short b Fore wing with the cilia pro-	5	XANTHIA, p 170
duced to points at the veins, the palpi very long	6	ELWESIA, p 171

^{*} In A polyodon there are sometimes a few spines at the end of the mid tibia

b Thorax with a long sharp crest behind the collar 7 PYRRHIA, p. 172 ce Thorax with a slight furrowed crest behind the collar and a pair of tufts on metathorax. fore wing with the cilia crenulate 24 Eurois, p 227 d' Thorax with a slight crest behind the collai, and no tufts on metathorax, fore wing with the cilia non-crenulate 32 TOXOCAMPA, p 245 en Thorax with no crest behind the collar, and slight tufts on metathorax, the cilia non-33 Conservula, p 246 crenulate Thorax without tufts or crests a' Palpi upturned a10 Fore wing with the cilia crenulate a11 Palpi with the 2nd joint not reaching vertex of head, the head and thorax clothed with long 25 Polia, p 231 hair b11 Palpi with the 2nd joint reaching vertex of head, the head and abdomen smooth, abdomen flat-13 Амениечка, р 190 tened b10 Fore wing the cilia noncrenulate Palpi with the 2nd joint quite smoothly scaled a12. Palpi with the 2nd joint reaching just above vertex of head a13 Palpi with the 3rd joint 15 AUCHA, p 193 short b13 Palpi with the 3rd joint long, recurved over head and buried in hair in male, upturned in female, male with very long tubular anal tuft 80 Convinuous, p 244 b12 Palpi with the 2nd joint not quite reaching vertex of head Antennæ ciliated in both 45 FLOCCIFERA, p. 281 seves b13 Antennæ quite simple all Palpi with the 2nd joint not thickened, fore wing of normal 53 LECCYMA, p 288. shape Ъ14 Palpi with the 2nd joint thickened, fore

wing with the inner

and outer margins forming an almost continuous curve bu Palpi with the 2nd joint fringed with hair	54	APSARASA, p 290
 a¹² Fore wing with the inner margin slightly lobed towards base b¹² Fore wing with the inner margin almost straight 	29	ACRONYCTA, p 240
a ¹³ Fore wing short and broad b ¹³ Fore wing long and	42	Caradrina, p 259
narrow, the apex pro- duced c11 Palpi with a tuft of hair on	20	Вомвусіл, р 206
2nd joint produced to an acute angle b' Palpi porrect	43	[р 268 Татновнумснів,
all Fore wing with the costa arched, vein 6 given off after angle of cell, antennæ of male bipectinate bio Fore wing with the costa nearly straight, vein 6 from angle of cell, antennæ of male chiated	52	Рахсідорыя, р 288
a ¹¹ Fore wing not produced at apex		_
a ¹² Fore wing of moderate breadth, the apex acute	48	Nonagria, p 284 [p 287
b12 Fore wing very narrow, the apex rounded b11 Fore wing with the apex	51	Phycidimorpha,
produced to a point a ¹² Fore wing of normal breadth, yein 7 from end	40	000
of areole b12 Fore wing very narrow, vein 7 anastomosing with	49	ACRAPEX, p 286
9 .	50	Acutipenna, p 287

Genus SPHETTA

Sphetta, Wik Cat xxx11, p 457 (1865)

Type, S apicalis, Wlk Range Sikkim, Malabar Coast, Ceylon

Eyes naked, palpi obliquely porrect, reaching beyond the frons, the 2nd joint heavily fringed with hair, antennæ fasciculate, thorax and abdomen smoothly scaled, the latter long, tible without spines Fore wing broad and rounded, vein 3 from long before end of cell Hind wing with veins 6 and 7 on a short stalk, 8 running close along 7 to middle of cell

This may be an abnormal Notodont genus allied to Cyphania

1585 Sphetta apicalis, Will Cat XXIII, p 457, Moore, Lep Ceyl II, pl 121, figs 2, 2 a (larva), C & S no 1139 Sphetta biocellata, Moore, P Z S 1879, p 405, C & S no 1140

d Head, thorax, and fore wing pale wainscot-brown, the last with traces of waved dark lines at the base, a double angulate antemedial line, a black streak from the middle of the cell to apex, before reaching which it is curved upwards, leaving a large pale

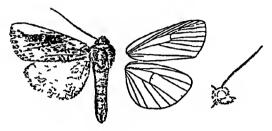


Fig 106 - Sphetta apicalis, d

patch on the costa before the apex, the orbicular and remform spots small and pale, four waved postmedial lines and one waved submarginal Abdomen and hind wing fuscous

2 Browner and darker

Larva greyish blue above, green below, with a darker lateral band dividing the two colours, a dorsal series of setiferous tubercles from the 4th to anal somite, a subdorsal series of small black spots

Hab Sikhim, Bombay, Nilgiris, Ceylon Exp, ♂ 42, ♀ 50

mıllım

Genus GLOTTULA

Glottula, Guen Ann Soc Ent France, vi, p 359 (1837)

Type, G pancratu, Cyr, from Europe

Range Europe, S Atrica, Mauritius, throughout India, Burma,

and Ceylon, Java

Eyes minutely pubescent, proboscis almost obsolete, palpi porrect and short, antennæ serrate in both sexes, thorax and abdomen without tufts, the former with erect woolly pile

1586 Glottula dominica, Cram Pap Exot iv, pl 399 H, Moore, Lep Ceyl iii, pl 145, figs 2, 2 a (larva), C & S no 1780

Head and thorax black-brown, abdomen red-brown Fore wing red-brown, palest beyond the middle, subbasal, niedial, and postmedial indistinct waved black lines, the reniform ochreous, a curved submarginal ochreous line with ferruginous lunules on each side of it, a marginal series of black lunules. Hind wing pure white

Larva Thick and warty. black, spotted with bluish white, the head, a dorsal patch on 1st somite and two terminal somites red with black spots, legs red and black

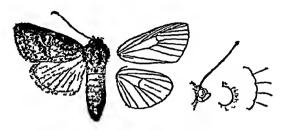


Fig 107 -Glottula dominica, d

Hab S Africa, Mauritius, throughout Continental India, Ceylon, and Burma, Java Eup 36-38 millim

1587 Glottula orientalis, n sp

d Head, thorax, and abdomen black-brown, the basal joint of antennæ yellow, some yellow on tegulæ Fore wing pale pink, some irregular black marks on base of costa and inner margin, a broken antemedial waved band, the remiform orange with black outline and a black patch on the costa above it, a lumulate post-medial line excurved and obsolescent from the costa to vein 3, well marked towards inner margin, the outer area black, with an irregular series of pink striæ. Hind wing dark fuscous, the discal area suffused with white, and with a lumile at end of cell, cilia of both wings orange and black, underside whitish with a cell-spot, traces of a postmedial line, and broad marginal band

Hab Nilgiris Eup 38 millim Type in coll Moore

Genus POLYTELA

Polytela, Guen Noct 1, p 113 (1852)

Type, P gloriosæ, Fabr

Range Throughout India and Ceylon, Java

Eyes hairy, proboscis fully developed, palpi porrect and roughly scaled, the 3rd joint short, antenno almost simple Thorax and abdomen without tufts, tibic without spines

1588 Polytela gloriosæ, Fabi Sp Ins 11, p 205, no 150, Moore, Lep Ceyl 111, p 145, figs 1, 1 a (larva), C & S no 1786

Head and thorax blue-black, the basal joint of palpi and antennæ orange, three orange specks on metathorax, abdomen black, the terminal segments orange. Fore wing blue-black, an

orange speck at base, the subbasal and antemedial waved lines filled in with orange, with an orange speck between them in cell,



and two pink and black lunules towards inner margin, the orbicular a yellow ring-mark, the reniform yellow, with the upper part centred with pink, the lower with fuscous, some orange specks on costa towards apex, the curved lunulate double postmedial line Fig 108—Polytela gloriose of. I filled in with yellow, and with a series of pink and black lunules

beyond it, large orange blotches at apex and outer angle, cilia black and orange Hind wing fuscous, with traces of an angled

postmedial line, the cilia orange

Larva smooth, purple-black, with dorsal, lateral, and sublateral series of white spots, purplish lateral blotches on thoracic and two terminal somites, head, legs, and a dorsal spot on 1st somite red Food-plant Amaryllis

Hab Throughout India and Ceylon Exp 28-42 millim

1589 Polytela florigera, Guen Noct 1, p 114, C & S no 1785 Polytela inclyta, Wih Char undescr Het p 27

Differs from gloriosa in the basal joints of the palpi and antennæ being black, the orange spots on metathorax often absent, cilia of hind wing black

Hab Madras, Canara Erp 28 millim

1590 Polytela chrysospila, Wik Cat axxii, p 635

Head, thorax, and abdomen black, the last with the extremity Fore wing with the basal two-thirds black, with blueblack patches on it, a large yellow patch at end of cell, the outer area blue-black Hind wing black

Hab Karen Hills, Java Exp 30 millim

Genus RABILA

Rabila, Wik Cat xxxii, p 507 (1865)

Type, R frontalis, Wlk

Range Ceylon

Eves naked without lashes, proboscis obsolete, palpi porrect and evenly scaled, the 3rd joint long, from with a rounded corneous projection, antennæ of male with short branches Thorax and abdomen without tufts, tibiæ without spines Neuration normal, fore wing with the apex somewhat produced and rounded, the outer angle slightly hooked

1591 Rabila frontalis, Wll. Cat xxxn, p 508, Moore, Lep Ceyl n, pl 132, fig 5, C & S no 1300



3 Reddish ochreous fore wing with the veins and interspaces slightly streaked with red-brown Hind wing white

Type very faded

Hab Ceylon Exp 34 millim

Fig 109 -Rabila frontalis, o

Genus XANTHIA.

Xanthia, Ochs Eur Schmett 1v, p 82 (1816)

Type, X luteago, Fabr, from Europe

Range Europe, Amur, Hunalayas, Khásı Hills

Eyes naked and without lashes, proboscis fully developed, palpi porrect or obliquely upturned, antennæ of male ciliated, thorax squarely scaled, with a high sharp crest behind the collar, abdomen without dorsal tufts, and clothed with long hair on the back of proximal segments, tibiæ without spines. Fore wing rather acute at apex, the outer margin excurved at centre, the cilia slightly crenulate

1592 Xanthia albosignata, Moore, P Z S 1881, p 355, C & S no 1977

& Whitish, suffused with pale red-brown, the abdomen with fuscous. Fore wing with whitish subbasal and antemedial lines, the latter oblique, orbicular and reniform otherous with chestnut outline, the latter with four white specks on its outer edge, a



Fig 110 -Xanthia albosignata, d 1

postmedial whitish line excurved beyond cell, the area beyond it suffused with ochreous, with an indistinct submarginal chestnut line, cilia fuscous. Hind wing whitish, the inner area suffused with fuscous, traces of a postmedial line. Underside with postmedial line to both wings and cell-spot to hind wing.

Hab NW Himalayas Exp 56 millim

1593 Xanthia melonina, Butl Ill Het vii, p 57, pl 128, fig 7

Orange-yellow, collar and patagia with purplish lines on them, abdomen tinged with pink. Fore wing with the veins purplish,

two subbasal purplish lines, the second arising from a patch on the costa, two antemedial lines slightly angled inwards on median nervure, a medial diffused band, the orbicular and ieniform large, with purplish edges, the postmedial line angled below the costa and at lower angle of cell, a dark submarginal nearly straight line, a marginal cienulate line. Hind wing pale, with a medial pink line from upper angle of cell to inner margin, a submarginal pink diffused band, the inner area suffused with pink, a crenulate marginal line. Underside of fore wing with two postmedial lines. Hind wing with cell-spot and postmedial line.

Hab Dharmsala Erp 44 millim

- 1594 Xanthia basalipunctata, Graeser, Berl ent Zeit 1888, p 341 Goittna intermita, Swinh Trans Ent Soc 1891, p 480, pl 19, fig 11
- Ochieous, suffused with ferruginous Fore wing with the costa narrowly ied-brown, double waved subbasal and antemedial lines, the latter with a red-brown patch in cell and another on inner margin, orbicular, remiform, and claviform with red-brown outlines, curved medial and postmedial lines, the latter with the whole area beyond it red-brown, except an apical vellow patch, an indistinct, waved, submarginal line Hind wing fuscous, with an indistinct postmedial line

Hab Amur, Khasis Exp 42 millim

1595 Xanthia gilvago, Esp Schmett Eur pl 176, fig 2 Noctua palleago, Hubn Samml Eur Schmett, Noct fig 442

Head and thorax orange-yellow, abdomen whitsh Fore wing orange-yellow, slightly suffused with rufous, indistinct rufous waved subbasal, antemedial, and postmedial lines, and antemedial, medial, and postmedial linulate fuscous bands, the orbicular and remiform indistinct, the latter with a dark spot on its lower part, a submarginal series of dark specks, with faint fuscous marks beyond them, the cilia reddish Hind wing vellowish white

Hab Europe, Gurais Valley, Kashmir Eap 38 millim

1596 Xanthia rectilineata, n sp

Pale reddish Fore wing with nearly straight subbasal antemedial, and postmedial pale lines with dark edges, some fuscous suffusion before the antemedial and beyond the postmedial line, a diffused fuscous medial band, the reniform fuscous and large, some fuscous on outer margin Hind wing pale

Hab Kulu (Hocking), Sultanpui, Kungra Eip 32 millim

Type in B M

Genus ELWESIA, nov

Type, E diplostigma, Hmpsn
Range Sikhim

Differs from Xanthia in the eyes being heavily lashed, palpi

with the 2nd joint reaching above vertex of head, the 3rd long and porrect, a large porrectly pointed tuft of hair on vertex of head, thorax with the sharp crest behind the collar very long Fore wing with the cilia produced to long points at the veins, hind wing with the cilia deeply crenulate

1597 Elwesia diplostigma, n sp

2 Bright chestnut Fore wing with short subbasal and straight antemedial ochreous dark-edged lines, the orbicular, reniform, and claviform very large with ochreous outlines, the reniform with a round fuscous othreous-edged spot at centre, the postmedial line



Fig 111 —Elwesia diplostigma, Q

slightly excurved beyond cell, with a double series of dark specks on the veins beyond it, the submarginal line almost straight, a slight crenulate marginal line Hind wing reddish fuscous, the outer margin and cilia tinged with ochreous

Hab Sikhim, 10,000 feet (Elwes) Erp 34 millim

coll Elwes

Genus PYRRHIA

Pyrrhia, Hubn Verz p 233 (1818)

Type, P purpurites, Treitschke, from Europe Range Europe, Amur, Japan, Himalayas, Naga Hills Eyes naked, proboscis fully developed, palpi porrect, thickly and evenly scaled, the 3rd joint very short, no frontal tuft Thorax with a long sharp crest behind collar, abdomen without tufts, mid and hind tibiæ without spines

SECT I Male with antennæ ciliated, eyes without lashes

1598 Pyrrhia umbra, Hufn Beil Mag 111, 294 Noctua marginata, Fabr Syst Ent 610, Kleem Beitr 11, pl 7, figs 6, 8, C & S no 1753 Noctua rutilago, Schiff Wien Verz 86, 4 Noctua umbrago, Esp Schmett 1v, pl 185, figs 7, 8 Noctua conspicua Boil Eur Schmett 1v, p 123, no 50 Noctua marginago, Hau Lep Brit p 235, no 217

Head, thorax, and fore wing brownish yellow, the last with a

chestnut subbasal line, antemedial, medial, and postmedial curved lines which approach each other at inner margin, the first angled

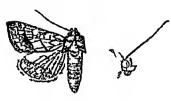


Fig 112 -Pyrrhia umbra, & 1

below the cell, the second on median nervure, orbicular and remiform stigmata outlined with chestnut, the area beyond the postmedial line sutfused with vinous, a lumilate submarginal line. Abdomen and hind wing ochreous, the latter with a fuscous lumile at end of cell and broad marginal band, the margin rufous. Underside with cell-spot

on each wing, that on fore wing large, a postmedial line with fuscous and rufous beyond it

 $egin{array}{lll} \emph{Hab} & \emph{Europe} \;,\;\; \emph{Amur} \;,\;\; \emph{Japan} \;,\;\; \emph{N} \; \emph{W} & \emph{Himalayas} \;,\;\; \emph{N\'agas} \\ \emph{Eup} & 40 \; \emph{millim} \end{array}$

SECT II Male with antennæ fasciculated, eyes with lashes

1599 Pyrrhia cuprea, Moore, P Z S 1867, p 50, pl 6, fig 8, C § S no 2149

d Head and thorax purplish red-brown, abdomen fuscous, the extremity fulvous. Fore wing orange suffused with purplish ied-brown, indistinct double-waved subbasal and antemedial red lines, the orbicular and renifoim orange irrorated and outlined with red, the claviform with red outline, the postmedial line dark and slightly curved, a submarginal dentate yellow line Hind wing fuscous brown, the costal area paler, cilia rufous Underside rufous, with traces of a postmedial line to both wings

One hind tibia has a single spine in accordance with its Hehothid

affinities

Hab Sikhim Eip 40 millim

Genus ADISURA.

Adisura, Moore, P Z S 1881, p 367

Type, A athinsoni, Moore

Range Sikhim, Assam Hills, and throughout Peninsular India and Cevlon

Differs from Pyrhia in having the mid and hind tibiæ sparsely spined, thorax without the sharp crest

1600 Adisura atkinsoni, Moore, P Z S 1881, p 368, pl 37, fig 6, C & S no 1745

Adisura leucamoides, Moore, P Z S 1881, p 368, C & S

Adısına pallıda, Moore, P Z S 1881, p 369, 1d Lep Ceyl 111, pl 150, fig 8, C & S no 1749

Head, thorax, and fore wing brownish ochreous, the last with a



Fig 113
Adisura athinioni, 6 }

greyish tinge, the costal and outer areas pinkish, the orbicular and ieniform stigmata represented by indistinct dark patches, an indistinct postmedial series of specks. Abdomen and hind wing straw-yellow, the latter with the outer area more or less broadly and completely suffused with fuscous. Underside usually with the reniform prominently black.

Hab Sikhim, Nágas, Karáchi and throughout the Bombay and Madras Presidencies, Ceylon Eap 31 millim

Genus HELIOTHIS

Heliothis, Ochs Lui Schmett iv, p 91 (1816) Heliochelus, Grote, Proc Lnt Soc Phil iv, 1865, p 328

Type, H dipsacea Linn, from Europe Range Universally distributed

Eyes naked and without lashes proboscis fully developed, palpi porrect, the 2nd joint evenly clothed with long hair, the 3rd short and depressed, a short frontal tuft. Thorax and abdomen without tufts, fore tibiæ with a pair of slender terminal spines, mid and hind tibiæ spined. Fore wing with veins 8 and 9 sometimes given off from the end of the areole

SECT I (Heliothis) Males without hvaline patches on the fore wing and distortion of the nervures

1601 Heliothis armigera, Hubn Samml Eur Schmett Noct 11, pl 79, fig 370, C & S no 1730, Hmpsn Ill Het 1x, pl 176, fig 22 (larva), Moore, Lep Ceyl 111, pl 150, figs 1, 1 a (larva) Heliothis pulverosa, Will Cat x1, p 688 Heliothis conferta, Will Cat x1, p 690 Heliothis succinea, Moore P Z S 1881, p 362, C & S no 1738 Heliothis rubrescens, C & S no 1736 (nec Will)

Ochreous with a pale brown, olive, or red-brown tinge Fore

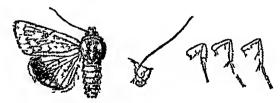


Fig 114 -Heliothis armigera, &

wing with indistinct double waved antemedial lines, a dark speck representing the orbicular, an indistinct curved medial line, the

reniform indistinct, postmedial and submarginal waved lines, the space between them somewhat darker and with a series of pale or dark specks on the nervules, a marginal series of dark specks Hind wing white, the veins fuscous, a broad blackish outer border usually with a pale submarginal central patch. Underside of fore wing with the oibicular and reniform stigmata conspicuously black, a broad blackish band beyond the postmedial line, the apices of both wings and outer area of fore wing pinkish.

Larva Dorsal area pale brown, a lateral whitish band, ventral area pale green, each segment with some black specks, head redbrown Or green with a dark dorsal and two vellow lateral lines, the thoracic somites speckled brown and black, 5th to 10th somites with lateral brown blotches, anal somite with an irregular black

dorsal mark Feeds on rose-buds

Hab Universally distributed Exp 31-41 millim.

1602 Heliothis peltigera, Schiff Wien Verz 89, 2, C & S no 1734,

Boisd Chen Helioth pl n, fig 1 (larva)

Noctua barbara, Fabr Ent Syst m, 2, p 111, no 334

Noctua florentina, Esp Schmett iv, pl 135, fig 2

Noctua scutigera, Borkh Schmett Eur iv, p 93, no 37

Noctua straminea, Donov Brit Ins n, pl 61

Phalena alphea, Cram Pap Evot m, pl 250 F

Phalena charmione, Stoll, Cram Pap Evot v, p 162, pl 36,
fig 10

Differs from armigera in being always ochreous Fore wing with reddish-brown patches on the costa, one small and antemedial, one above the reniform which is prominent and with grey centre, the other at the postmedial band. Underside with the reniform prominent and black, but the orbicular obsolete

Larva bright green, with darker green and fuscous short stieaks

and blotches and white lateral line

Hab Europe, Teneriffe S Africa, Persia, NW India, as far south as Poona, New Zealand Exp 40 millim

1603 Heliothis nubigera, Herr-Schaffer, Eur Schmett in, p 366 Heliothis perigeoides, Moore, P Z S 1881, p 361, C & S no 1735

Differs from armigera in having the submarginal fuscous band of fore wing more prominent, its outer edge deeply indented between veins 5 and 6, the marginal series of black specks prominent, the underside much whiter

Hab Europe, Syria, Somaliland, Dalhousie, Cutch Erp

38 millim

1604 Heliothis scutosa, Schiff Wien Verz 89,1, Esp Schmett Eur iv pl 108, figs 1, 2, C & S no 1737, Boisd Chen Helioth pl 1, figs 1, 2 (larva)

Reddish brown Fore wing with a subbasal black line from

costa to vein 1 b, an antemedial irregularly waved line, the orbicular and reniform stigmata outlined with black and placed on a whitish patch, a black dentate mark below the cell, a postmedial line excuived from costa to vein 3, then oblique and waved to inner margin, the area between it and a series of submarginal blackish lunules darker, a series of small marginal black lunules. Hind wing suffused with reddish ochreous, a large black cell-spot with a whitish patch beyond it, a black postmedial line, a broad black marginal band usually with a pale patch at the centre of margin Underside paler, the orbicular and reniform stigmata deep black

The typical European race is much greyer and whiter than the Eastern race

Laiva green, with subdorsal and sublateral series of black specks and yellow and black dorsal and lateral lines

Hab Europe, China, NW Himalayas Exp 34-38 millim

SECT II (Heliochilus) Males with large hvaline spaces on the forewing below the costa and in cell, with the wing-membrane ridged, the costal nervice and veins 7 to 10 much curved

*1605 Heliothis translucens, Feld Reis Nov pl 108, fig 49, C & S no 1757

3 Pale brown Fore wing crossed by ante- and postmedial curved and waved lines, the latter with some white beyond it, followed by a series of white specks with some dark suffusion beyond them. Hind wing whitish, with a large black patch at end of cell, a broad submarginal black band sending fascize to the base in interno-median interspace and on inner margin.

Closely allied and possibly identical with H inflatus, Wligr,

from N America and Hawaii

Hab Uini, NW Himalayas Eip 28 millim

Genus CHARICLEA

Chariclea, Curt Brit Lnt pl 76 (1825) Quiubasa, Moore, P Z S 1881, p 366 Pradatta, Moore, P Z S 1881, p 364 Dorika, Moore, P Z S 1881, p 363 Masaha, Moore, P Z S 1881, p 364 Sophaga, Moore, P Z S 1881, p 362

Type, C delphinu, Linn, from Europe Range Europe, Abyssinia, throughout India, Burma, and

Ceylon, Australia
Differs from Heliothis in the pair of spines on the foie tibia being stout and more crooked, the inner very long, the mid and hind tibix not spined Fore wing with the apex more or less acute

SECT I Hind wing in male with veins 3, 4 and 6, 7 from the cell

1606 Chariclea marginalis, Will Cat vu, p 830, C & S no 1748 Curubasa cruentata, Moore, P Z S 1881, p 367, C & S no 1742 Curubasa marginata, Moore, P Z S 1881, p 367, C & S no 1744

Adisura dulcis, Moore, P Z S 1881, p 368, pl 37, fig 20, C & S no 1746

Adisura similis, Moore, P Z S 1881, p 369, C & S no 1750

Yellowish white Fore wing with a broad pale pink fascia along the costa extending to the subcostal nervure, and another along inner margin extending to the middle of interno-median interspace. cilia more or less pink. Hind wing with an indistinct broad fuscous marginal band

The form coventata, from the NW Himalayas, has no marginal

band to hind wing

Hab N W Himalayas, Sikhim, Bombay Presidency, Calcutta, Ganjam Exp 24-30 millim

1607 Chariclea lanceolata, Will Cat xxxii, p 767, C & S no 1743 Curubasa depicta, Swinh Trans Ent Soc 1891, p 146, pl 8, fig 4

Differs from marginalis in being pure white, fore wing with the

pink fasciæ broader and brighter, a yellowish patch at base, hind wing

uniform white

The form depicta is larger, with the fascie of the fore wing puiplish pink, the hind wing suffused with fuscous

Hab Simla, Mhow, Nilgiris Eip, 3 30, ♀ 30-40 millim



Fig 115 Chariclea lanccolata, &

1608 Chanclea decorata, Moore, P Z S 1881, p 365, C & S no 1728

Differs from marginalis in the pink of the fore wing being disposed as a fascia through the cell, and another in the internomedian interspace, an oblique band from apex to inner margin, the cilia pink II mid wing uniform straw-colour

Hab Dharmsála Erp 20 millim

1609 Chariclea bivittata, Will Cat ix, p 108, C & S no 1727

Head and thorax chestnut, abdomen whitish Fore wing reddish orange, a silvery fascia outlined with black from the origin of vein 2 to outer margin, another above vein 1 b from the base to outer angle, some white streaks defined with black on the veius at Hind wing white outer margin

Hab Bombay Presidency, Moulmein Eip 30 millim 1610 Chariclea sanguinolenta Moore, P Z S 1881, p 363, C & S no 1723 Donka ignea, Hmpsn Ill Het vin, p 70, pl 144, fig 21

Head and thorax reddish chestnut, abdomen whitish Fore wing bright golden, the costa pale, diffused coppery-red fascia along the costa, median and submedian nervures from base to outer margin and from upper angle of cell to outer margin, traces of dark specks at the angles of cell and of a curved postmedial series, cilia white, slightly tinged with pink at apex and outer angle Hind wing yellowish white

The form ignea from the Nilgiris has some black on head and thorax, the fore wing with diffused black on costa, median and submedian nervures, and on outer margin below apex, the specks at angles of cell and the postmedial series prominent, cilia bright pink

Hab Bombay, Nilgiris Eap 30-37 millim

1611 Chariclea sinuata, Moore, P Z S 1881, p 363, C § S no 1756

Head, thorax, and fore wing golden orange, suffused with ferruginous red Fore wing with an indistinct antemedial dentate line, a speck on discocellulars, oblique dentate postmedial line and series of marginal black specks Hind wing pale ochreous, suffused with fuscous

Hab Bombay Evp 34 millim

1612 Chariclea beatile, Moore, P Z S 1881, p 365, Swinh P Z S 1886, pl 41, fig 5, C & S no 1726

Masalia tosta, Moore, P Z S 1888, p 411

Masalia rosacea, Hmpsn Ill Het viii, p 71, pl 144, fig 23

Masalia terracotta, Hmpsn Ill Het viii, p 71, pl 144, fig 22

Masalia radiata, Moore, P Z S 1881, p 364, C & S no 1755

Head and thorax pale brownish pink, abdomen white Fore wing with the apex sometimes acute, whitish, with a broad pale pink fascia on the costal area, another along median nervuie expanding between veins 2 and 5, and conjoined to a broad fascia on inner area. Hind wing white, tinged with pink on outer margin.

In rosacea and terracotta from the Nilgiris there is hardly a trace of white in the interno-median interspace of fore wing, and the hind wing is fuscous, the latter has the fore wing yellowish pink, with some fuscous below the median nervure. In a form from Baluchistan there is hardly any white on fore wing, the inner area of which, as well as the hind wing, is suffused with fuscous tosta has the fore wing almost wholly pink, the hind wing white

The form radiata is dusky pink, fore wing with white streaks

beyond cell and below median nervure, hind wing fuscous

Hab Baluchistan, NW Himalayas, Mhow, Canara, Nilgiris Exp 22-30 millim

X

1613 Chariclea aureola, Will Cat ix, p 108, C & S no 1722 Dorika curta, Swinh Trans Ent Soc 1891, p 146

Differs from beatrix in having a series of black marginal specks to the fore wing; the hind wing pure white

In the form curta the fore wing is rather shorter, and there are traces of specks on the outer margin of hind wing

Hab Bombay, Mhow, Poona, Canara Eip 30-36 millim.

- 1614 Chariclea uncta, Swinh P Z S. 1885, p 449, pl 27, fig 12, C & S no 1751
- Head, thorax, and fore wing brownish ochreous, the last with a pinkish tinge on costal area, and some fuscous suffusion on inner area, a postmedial curved series of dark strige on the nervules, cilia pink Hind wing pale, suffused with fuscous Abdomen pale

Hab Bombay. Evp 26 millim

- 1615 Chariclea irrorata, Moore, P Z S 1881, p 364, C & S no 1"54
- 2 Differs from unctain the fore wing being uniform pink, with slight irroration and postmedial series of dark specks Hab NW Himalayas, Sikhim Erp 32 millim
- 1616 Chariclea bimaculata, Mone, P Z S 1888, p 411, Butl Ill Het vii, p 67, pl 129, fig 12 Arsiloncha roseana, Swinh Trans Ent Sic 1890, p 220, pl vi, Pradatta pallescens, Hinpsn Ill Het viii, p 70, pl 144, fig 5 Pradatta pulverulenta, Hmpsn Ill Het viii, p 71, pl 144, hg 11

Head, thorax, abdomen, and fore wing pale straw-colour, the last with a dark speck at end of cell, the veins slightly tinged with pale pink

The Nilgiri form pallescens is much larger than the typical form. and in pulverulenta there is a diffused fuscous fascia on the fore wing from the base along median nervure to outer margin, and a small patch at base of vein 1 b

In roseana the black specks at end of cell are absent

Dharmsála, Sikhim, Nilgiris, Bhámo, Burma $E_{\lambda p}$ Hab22-31 millim

1617 Chariclea artaxoides, Moore, P Z S 1881, p 366, C & S. Curubasa calamaria, Moore, P Z S 1881, p 367, C & S

no 1741

Pradatta modesta, Moore, P Z S 1881, p 366, C & S no 1729

Uniform bright straw-colour, with a fulvous tinge, abdomen and hind wing with a slight fuscous suffusion

In the form modesta the hind wing is whitish

Hab NW Himalayas, Mainpuri, Bombay Erp 27 millim 180 NOCTUIDA.

SECT II Palpi shorter, hind wing of male with veins 3 and 4 on a long stalk, 6 and 7 on a short stalk

1618 Chariclea dora, Swinh Trans Ent Soc 1891, p 147

d Head, thorax, and fore wing reddish ochreous, the last with an indistinct diffused dark patch on discocellulars and a curved submarginal diffused fuscous band joined by an oblique streak from the apex. Abdomen and hind wing yellowish white

2 with the fore wing unmarked

Hab Khandála Eap, & 26, 2 30 millim

Genus RAGHUVA.

Raghuva, Moore, P Z S 1881, p 362

Type, R confertissima, Wlk

Range Combatore

Differs from Chariclea in having the mid and hind tibiæ armed with spines

1619 Raghuva confertissima, Will. Cat xxxii, p 625, C & S

d Head and thorax brownish ochreous Fore wing brownish ochreous, slightly suffused with ferruginous, especially along

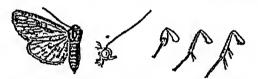


Fig 116—Raghuva confertissima, & }

median nervure, a black spot at end of cell and prominent postmedial and marginal series of black specks. Abdomen and hind wing yellowish white. Underside of fore wing with the black cell-spot prominent

Hab. Combatore Exp 30 millim

Genus AGROTIS.

Agrotis, Ochs Eur Schmett iv, p 66 (1816) Graphiphora, Ochs Eur Schmett iv, p 68 Peridroma, Hubn Verz p 227 (1818) Axylia, Hubn Verz p 242 Chera, Hubn Verz p 211 Amathes, Hubn Verz p 222 Triphæna, Hubn Verz p 221 Spælotis, Bossd Ind Meth p 106 (1840)

Type, A segens, Schiff Range. Universally distributed

Eyes naked and without lashes, proboscis fully formed, palpi obliquely porrect, the 2nd joint evenly scaled, the 3rd prominent Thorax and abdomen without tufts, the latter somewhat flattened Tibiæ very strongly spined. Fore wing with the outer margin not crenulate, hind wing with veins 3 and 4 from cell

SECT I (Agrotis) Males with the antennæ bipectinate, the branches of moderate length

Whitish brown, pale brown, or fuscous, palpi darker at sides, collar with dark line, abdomen whitish. Fore wing with double waved subbasal ante- and postmedial lines, an obscure waved submarginal line and marginal series of specks, the orbicular and

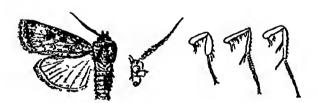


Fig 117 — Agrois segetis, d

reniform with dark centres and edges, the claviform small and black, all these markings being much obscured in the dark specimens. Hind wing iridescent white with dark marginal line, and in some specimens with dark suffusion on the margin.

Hab Europe, and throughout India and Ceylon Erp 42-48

millim

1621 Agrotis corticea, Schiff Wien Verz 81 13 Agrotis fraterna, Moore, Lep Ath p 116, C & S no 1988

Differs from segets in the antemedial double lines of the fore wing being prominent, the hind wing tinged with fuscous brown Hab Europe, Madagascar, NW Himalayas, Sikhim, Nagas, Nilgiris Exp 40-42 millim

Agrotis biconica, Koll Hugel's Kaschmir, 1v, p. 480
Agrotis exigua, Koll Hugel's Kaschmir, 1v, p. 481
Agrotis spiculifera, Guen Noct 1, p. 266
Agrotis aristifera, Guen Noct 1, p. 266, Moore, Lep Ceyl 111,
pl. 147, fig. 5, C & S no. 1981

Differs from segetis in having the subbasal ante- and postmedial lines of the fore wing almost or quite obsolete, the submarginal line strongly dentate, with dark streaks on it, the orbicular elongate, with a dark streak from it to the remiform, the claviform very elongate and filled in with black

Hab S Africa, N W Himalayas, Punjab, Sikhim, throughout the Bombay and Madras Presidencies, Ceylon Evp 38 millim

1623. Agrotis ypsilon, Rott, Naturf xi, p 141
Noctus suffusa, Fabr Mant Ins 11, p 157, Moore, Lep Ceyl 111,
pl 147, fig 6, C & S no 2001
Phalena idonea, Cram Pap Exot 111, pl 275 H
Bombyx spinula, Esp Schmett 111, pl 63, figs 6, 7

Differs from segetis in the fore wing being more suffused with brown, and with a black streak beyond the reniform, the submarginal line dentate, with two black streaks on it below the apex Hind wing more or less suffused with fuscous brown

Hab Universally distributed, except S America Exp 42-56

millim

1624. Agrotis ochracea, Wil. Cat xxxii, p 657, C & S no 2130
Graphiphora viaria, Swinh P Z S 1889, p 412
Hadena ruptistriga, Wil. Cat xxxii, p 739, C & S no 1941
Graphiphora frontalis, Moore, Lep Ceyl iii, p 35, Hmpsn Ill
Het ix, pl 161, figs 20, 21, C & S no 2013

Ochreous, grey-brown, or red-brown, palpi dark at sides. Fore wing with double subbasal and antemedial waved lines, the orbicular and reniform stigmata large in the form ruptistriga, with a black spot between them and a triangular black spot before the orbicular, the reniform often filled in with grey or chestnut, a diffused angled medial fuscous band, a double lumulate curved postmedial line, a submarginal pale line and marginal crenulate dark line. Hind wing fuscous brown or red-brown

Hab Rawal Pindi, Dharmsala, Thandiani, Sikhim, Ceylon

Eap 41 millim.

1625. Agrotis olivascens, n sp

Reddish clive, palpi chestnut at sides. Fore wing with a slight dark streak below median nervure from base, orbicular pale, renform a pale lunule, the postmedial double lines composed of a series of indistinct lunules with specks on the nervules beyond them. Hind wing pale fuscous, calla of both wings ochreous. Underside with cell-spot and postmedial line to hind wing.

Hab. Sikhim. Exp. 38 millim. Type o in coll Elwes, Q in B. M

AGROTIS 183

SECT II Antennæ of males bipectinate, the branches very short

1626 Agrotis brevirami, n sp

d Head and thorax reddish grey-brown Fore wing reddish grey-brown, with very indistinct double waved subbasal and ante-medial lines, a diffused medial line angled on median nervure, the orbicular and remiform small and very indistinct, the lumulate postmedial line and irregular sinuous submarginal line indistinct Abdomen and hind wing fuscous brown

Hab Mussooree (Harford) Erp 34 millim. Type in B M

1627 Agrotis monticola, n sp

d Grey Fore wing with indistinct subbasal ante- and postmedial double waved lines, orbicular and reniform with slight dark outlines, some pale specks on costa towards apex, an irregularly lunulate pale submarginal line, a marginal series of specks. Hind wing fuscous, underside paler, with cell-spot and indistinct postmedial line.

Hab Lahoul, 12,000 feet Exp 38 millim Type in coll Elwes

SECT III (Pendroma) Antennæ of male with fasciculated cilia

1628 Agrotis intracta, Will Cat x, p 346, C & S no 1991

Fuscous brown the hind wing dark fuscous, markings as in segetis

Hab. Dharmsála, Nepal. Eap 46 millim

1629 Agrotis sikkima, Moore, P Z S 1867, p 53, C & S no 2079

Smoky black, head and thorax with some white scales Fore wing with the lines ill defined, a white speck followed by a black patch in interno-median interspace, the orbicular and reniform white, the medial area irrolated with white scales, three black streaks on the submarginal line Hind wing whitish, suffused with fuscous towards outer maigin

One specimen has the collar white Hab Sikhim Erp 36 millim

- 1630 Agrotis undulans, Moore, A M N H (5) 1, p 233, § 2nd Yarkand Mission, pl 1, fig 10, C § S no 2007
- of Pale ochreous brown Fore wing with traces of double waved subbasal ante- and postmedial lines and single waved submarginal line Hind wing with the cilia white Hab Yarkand, S Afghanistan, Karáchi Erp 44 millim
- 1631 Agrotis plecta, Linn Syst Nat p 851, Kn by, Eur Butt Moths, pl 36, fig 4 a (larva)
 Ochropleura vicaria, Will Cat x, p 409
 Ochropleura costalis, Moore, P Z S 1867, p 56, C & S no 2021
 Ochropleura ignota, Swinh P Z S 1889, p 411

Bright reddish chestnut, palpi dark at sides, collar pale with a black line through it. Fore wing short and square, with a broad white costal fascia from base to postmedial line, usually with a black fascia below it, the ante- and postmedial lines single, indistinct, and curved, the submarginal line almost obsolete, orbicular and reniform small with white outline, claviform almost obsolete, a marginal series of dark specks. Hind wing white, sometimes with a reddish tinge

Larva brown, the ventral area yellow, fine dark lines on dorsal

area, stigmata black

Hab N America, Europe, S Africa, Japan, Sikhim, Ceylon Eip 34 millim

- 1632 Agrotis conformis, Swinh Trans Ent Soc 1885, p 349, pl 9 fig 5, C & S no 1984
 - Justin Transform ochreous, the hind wing ochreous white Hab Quetta Eip 38 millim
- 1633 Agnotis cespitis, Swinh Trans Ent Soc 1885, p 349, pl 11, fig 4, C & S no 1983
- 3 Pale ochreous, collar with a line through it Fore wing with indistinct double subbasal ante- and postmedial waved lines and waved submarginal line, orbicular, reniform, and claviform with indistinct dark outlines, a marginal dark line Hind wing ochreous white

Hab Quetta Eip 32 millim

SECT IV (Chera) Antennæ of male minutely ciliated

A Hind wing with the aper slightly produced

1634 Agrotis tenuis, Butl Ill Het vii, p 57, pl 127, fig 12

G Head and thorax bright chestnut-red, abdomen piler Fore wing chestnut-red, the orbicular and reniform large and on a dark patch, the postmedial waved line indistinct, the submarginal line regularly curved, except that it is bent inwards below the costa. Hind wing pale red, the cilia chestnut. Underside of fore wing fuscous, the costal and outer areas reddish, hind wing pale reddish, the costal area darkest, a cell-spot and indistinct postmedial line.

Hab Laka, Kángra, NW Himalayas Erp 40 millim

B Hind wing with the aper rounded

1635. Agrotis descripta, Biem Lep Ost-Sib p 51, pl iv, fig 11 (1864)

Cerastis subdolens, Butl Trans Ent Soc 1881, p 181 Graphiphora basistriga, Moore, P Z S. 1867, p 54, C. § S no 2008 AGROTIS 185

Graphiphora vulpina, Moore, Lep Ath p 118, C & S no 2019 Graphiphora rubicilia, Moore, P Z S 1807, p 55, C & S no 2017

Graphiphoia canescens, Butl Ill Het ii, p 28, pl 30, fig 1 Oithosia ei ubescens, Butl A M N H (5) v, p 224, C & S no 1914 Graphiphoia flaviiena, Moore, P Z S 1881, p 352, pl 38, fig 3, C & S no 2012

Graphiphora nigrosigna, Moore, P Z S 1881, p 352, pl 38, fig 4, C & S no 2015

Chera efflorescens, *Hmpsn Ill Het* viii, p 78, pl 145, fig 7 Chera erubescens, *Hmpsn Ill Het* viii, p 78, pl 145, fig 14

Fuscous or purplish grey-brown, pale or dark red-brown, or bright red or golden brown. Palpi black at sides, or pink in the golden specimens. Fore wing with the subbasal, ante- and post-medial waved lines indistinct, the last much curved, the submarginal line pale and angled below the costa, the orbicular and reniform indistinct, the latter often with the upper part ochreous or reddish, the lower part fuscous, the claviform small and obsolescent, sometimes filled in with black. Hind wing pale or dark fuscous, cilia of both wings reddish. Underside with a postmedial line doubly curved on hind wing, which has a cell-spot

Descripta=subdolens=canescens are reddish forms, basistinga is yellowish chestnut with distinct markings, inbiculta golden brown with the markings indistinct, efflorescens and enubescens from the Nilgins are vinous grey-brown with very indistinct markings, the latter with the clavitorm black

Hab Japan, NW Himalayas, Sikhim, Nilgiris Erp 32-40 millim

1636 Agrotis cerastoides, Moore, P Z S 1867, p 54, C & S no 2009

Apamea nubila, Moore, P Z S 1881, p 346, pl 38, fig 10, C & S no 2057

Differs from descripta in being dark purplish grey, the postmedial double line of fore wing more prominent and evenly curved

Hab Simla, Sikhim Erp 32-40 millim

1637 Agrotis curviplena, Will Cat xxxIII, p 715, C & S no 1913

Head and thorax clothed with ochreous and rufous hair, abdomen fuscous. Fore wing ochreous and rufous, the double subbasal and antemedial waved lines prominent, the orbicular, reniform, and claviform large with rufous outlines, an indistinct medial line angled below the costa in cell and on median nervure, a lunulate postmedial line, the submarginal line straight and dark rufous, a marginal fine line. Hind wing dark fuscous, the cilia ochreous. Underside of fore wing fuscous, with the costal and outer areas reddish ochreous, hind wing reddish ochreous, with irregular postmedial line.

Hub Sikhim Eip 40 millim

1638 Agrotis cervina, Moore, P Z S 1867, p 47, pl 6, fig 18, C & S no 1704

d Head and thorax purplish grey, palpi and pectus bright chestnut, abdomen reddish. Fore wing purplish grey, a double subbasal chestnut line with a speck beyond it, double curved antemedial and slightly vinous postmedial lines, the area between them suffused with chestnut, the orbicular grey, large, and oblique, the remiform dark and indistinct, an indistinct waved chestnut submarginal line, a marginal series of specks, cilia reddish Hind wing and underside reddish brown, the latter with postmedial line to both wings

Hab Sikhim Exp 46 millim

1639. Agrotis albipennis, Butl Ill Het vii, p 58, pl 127, fig 13

Pale red-brown, palpi chestnut at sides, collar with dark edge, abdomen pale, chestnut at extremity. Fore wing pale red-brown, the subbasal line deep black from costa to above vein 1, the antemedial waved line very oblique, narrowing from a deep black spot on costa, the orbicular and reniform defined by fine lines and incomplete above and below, the latter with a dark line in centre, claviform defined by a fine line, an obliquely curved medial line with a diffused darker shade beyond it, the postmedial line slightly waved and incurved at vein 3, arising from a black speck on costa, submarginal and marginal lines, the former slightly angled below costa, where there is a dark shade inside it. Hind wing ochreous white in male, fuscous in female

Hab Dharmsala Exp. 40 millim

1640. Agrotis putris, Linn Syst Nat p 850, Buckler, Brit Butt Moths, pl 52, fig 5 (larva) Axylia lignosa, Hubn Eur Schmett Noct fig 245 Axylia triseriata, Moore, P Z S 1888, p 409, C & S no 1715 A

Head and collar whitish red-brown, thorax red-brown, abdomen fuscous. Fore wing ochreous white, the costal area suffused with red-brown, the basal area streaked with red-brown as far as the highly dentate double antemedial line, orbicular and reinform with dark centres and outline, claviform dentate and obsolescent, the postmedial line consisting of a series of small lumiles, the submarginal line of a double series of specks, a marginal series of specks with some red-brown marks on margin. Hind wing whitish with slight brown suffusion.

Larva fuscous, the head black ringed with yellow, thoracic somites with two pairs of dark stripes, the other somites with subdoisal and lateral series of black spots and pale sublateral line, some yellow on 4th and anal somites. Another form has black specks on the thoracic somites and dark double dorsal bands and

lateral stripes instead of spots on the other somites, the yellow confined to the terminal somites

Hab Europe, Japan, Dharmsála Exp. 40 millim

1641 Agrotis renalis, Moore, P Z S 1881, p 341, C & S no 1715

Differs from putres in the orbicular and reniform stigmata being smaller, a blackish fascia from the former to the outer margin below apex, cilia chequered brown and pale

Hab NW. Himalayas, Punjab, Sind Exp 36 millim

1642. Agrotis dispalata, Swinh Trans Ent Soc 1891, p 145

Differs from renalis in the dark fascia of the fore wing being interrupted at the middle, the hind wing pure white Hab Poons, Khandala Exp 28 millim

1643. Agrotis niveisparsa, Butl Ill Het vii, p 54, pl 127, fig 11

d Head, thorax, and fore wing dark brown irrorated with grey, the last with the subbasal, ante- and postmedial double waved lines somewhat indistinct, the orbicular and reniform large, not prominent, and outlined with ochreous and black, a dark shade round the reniform, a submarginal series of ochreous specks, those towards the costa having dark dashes before them, a marginal series of black points, three white specks on costa towards apex Abdomen and hind wing dark fuscous, the latter with a dark lunule at end of cell and postmedial band on underside

Hab. Dharmsála. Erp 40 millim.

1644 Agrotis griseivena, n sp

. Q Head and collar reddish, thorax and abdomen grey Fore wing pale red-brown, the basal three-fourths of costa grey, the median nervure and veins 1, 3, and 4 as far as the submarginal line grey, the subbasal and antemedial double waved lines indistinct towards costa, black below the cell, the orbicular, reniform, and claviform with black and grey outlines, the postmedial lunulate line black and grey, a submarginal slightly waved very prominent grey line, a marginal lunulate black line, base of cilia ochreous. Hind wing pale tuscous. Underside with postmedial sinuous line to both wings.

Hab Dalhousie (Harford) Erp. 40 millim Type in B M

1645 Agrotis ravida, Schiff Wien Verz p 80
Noctus obscura, Brahm, Ins Kal 1, p 191
Noctus bigramma, Esp Schmett Eur pl 150, fig 2
Noctus obducts, Esp Schmett Eur pl 142, fig 4
Noctus austera, Esp Schmett Eur pl 142, fig 5
Graphiphora valida, Will Cat xxxii, p 711, C & S no 2018 A

Grey-brown, sometimes with a reddish tinge Fore wing with a black streak from base below median nervure, the subbasal double

11

16

black line waved, the antemedial dentate, the orbicular and renthere the former than the former than the form with black outlines, and often with a black streak between form with plack outlines, and often with a plack streak petween and often them, the former often elongate, clayform narrow and industrict, obsolete, the double waved postmedial line curved and industrict, the culture obsolete, the costs towards are the culture of the culture ousciete, the double waved postmedial the curved and indistinct, the submarginal pale three pale specks on costa towards apex, and a non-modulation three pale specks of hoth wings with a non-modulation. three pale specks on costa towards upex, the suomarginal pale line indistinct. Underside of both wings with a postmedial line. te muisunce \cup nucreine or void wings with n postmental ine Hab N America, Europe, Japan, China, Thandiáni, Punjab

1646 Agrotis modesta, Moore, P Z S 1881, P 351, C § S no 1994 Spælous ambigua, Butl Ill Het vii, P 54, pl 128, figs 10, 11 Exp 48 milm

Differs from ravida in being Pale or dark red-brown, black and bind wing dark fuscous. Fore wing with no black the enternedial double line waved the orbital streak from base abdomen and nind wing dark fuscous Fore wing with no black the orbicular streak from base, the antemedial double him waved, the orbicular streak from base, the antemedial double him waved and the orbicular streak from base, the antemedial double him waved and the orbicular streak from base, the antemedial double him waved and the orbicular streak from base, the antemedial double him waved and the orbicular streak from base, the antemedial double him waved and the orbicular streak from base, the antemedial double him waved and the orbicular streak from base, the antemedial double him waved and the orbicular streak from base, the antemedial double him waved and the orbicular streak from base, the antemedial double him waved and the orbicular streak from base, the antemedial double him waved and the orbicular streak from base, the antemedial double him waved and the orbicular streak from base, the antemedial double him waved and the orbicular streak from base, the antemedial double him waved and the orbicular streak from base and the orbicular streak from base and the orbicular streak from the or streak from pase, the antenneuth double fine waved, the ordicular Underside Without Postmedial line, lounded, claytform present

hind wing with a dark spot at end of cell 1647. Agrotis c-nigrum, Lunn Syst Nat P 852, C & S no 2016, Het ix, Hubn Lur Schmett Noct Pl 24, fig 111, Hmpsn Ill Het ix, nl 176, for A (larva)

pi 1/0, ng 4 (larva)
Bombyz non-atrum, Esp Schmett Eur III, text, p 385
Nontrio methics Tor suppliance For Schmett Fan III Noctua gothica, var singularis, Esp Schmett Eu, in, pl 76, fig 3 Head, thorax, and fore wing dark brown or red-brown

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nead, thorax, and fore wing dark brown or red-brown fuscous black at sides, (ollar whitish, tipped with brown, and with a fusbasal line on it, abdomen fuscous fore wing with double stibbasal line on it, abdomen fuscous black lines, a pale triangular patch and antemedial evenly curved black lines, or hicular. which has triang the middle of costa obliterating the or hicular. and antenedial eventy curved black intesting the orbicular, which has trafferent the middle of costa obliterating the orbicular, large not and after a maniferent large not angular black patches before and after it, renform large, pale and fuscous and defined by inner and outer lines also fuscous and defined by inner and outer lines also fuscous and defined by inner and outer lines. unguase places perore and and outer lines, clayform small and fuscous, and defined by inner and outer lines, charged nostmedial indistinct. An indictinct double would and much curved nostmedial indistinct, an indistinct double waved and much curved postmedial the with a series of deal angels and the without the series of deal angels and the series of deal angels are the series inustince, an inustance double waved and much curved postmental line indis-line with a series of dark specks on it, the submarginal line indis-tinct, angled and defined by black below the costs. tnet, angled and defined by black below the costs unit, angled and defined by black below the costs whitch enfineed with fuecous Underside with indistinct post-

Lava pink, with a broad dark brown subdorsal band, a lateral whitish, suffused with fuscous medial line and cell-spot to hind wing now value with orown spots on it, nead red-brown Khasis, NW Himalajas, Khasis, Japan, NW Himalajas, Europe, Japan, Ai millim ombay. Nilmis - Cevlon yellow band with brown spots on it, head red-brown

1648 Agrotis ditrapezium, Borkh Schmett Eur iv, p'515, C & S no 2025 Noctua tristigma, T, etsche, Ochs Eur Schmett v, P 243 Noctua tristigma, T, etsche, Mone, P Z S 1881, P 353, C § S Ochroplema consangunea, Mone, P Z S 1881, P 353, C § S no 2020 Bombay, Nilgiris, Ceylon

Ochropleura renalis, Moore, P Z' S 1867, P 55, C & S

Differs from c-num in the collar being usually of the ground-low. sometimes rufous Fore ning with the whole costil ner

colout, sometimes rufous

AGROTIS 189

concolorous or with a whitish fascia from the base to postmedial line, or bicular grey-brown and forming a complete circle, the cell on each side of it black. Hind wing darker fuscous

The form renalis has the double antemedial lines of the fore wing with two sinuations, instead of oblique and minutely dentate,

the hind wing darker

Hab N W Himalayas Eip 50-58 millim

- 1649 Agrotis junctura, Moore, P Z S 1881, p 351, C & S no 1992
- 3 Differs from ditrapezium in the subbasal and antemedial lines of fore wing being inwardly oblique, the orbicular oval and oblique

Hab Dalhousie Exp 42 millim

1650 Agrotis flammatia, Fabr Mant Ins 11 p 155, C & S no 2024 Agrotis basiclavis, Wik Cat x, p 346

Differs from c-mgium in being pale brown, the collar brown with a deep black triangular mark. Fore wing with a broad pale costal fascia from the base to postmedial line, no subbasal line but a black streak from the base below median nervure, orbicular pale, rounded, and joined to the costal fascia, remiform pale, the area in the cell outlining the stigmata varying from brown to dark fuscous, claviform almost obsolete, a marginal series of dark specks. Hind wing fuscous brown

Hab Europe, NW Himalayas, Punjab, Sikhim Eup

56 millim

1657 Agrotis triangularis, Moore, P Z S 1867, p 55, C & S

Differs from flammatia in being dark purplish red-brown, the collar white, tinged with rutous in front of the triangular black mark, costal fascia white or tinged with rutous, the orbicular subtriangular, the cell not darker than the ground-colour, the ante- and postmedial double lines rutous. Hind wing dark fuscous

Hab Japan, NW Himalayas, Sikhim, Satára, Nilgiris Erp 48 millim

1652 Agrotis accipiter, Feld Reis Nov pl 111, fig 29, C & S

Head and collar yellowish white, thorax and abdomen brown Fore wing brown, the costal area suffused with grey-green, subbasal, anter and postmedial wived black lines, the orbicular and remiform large with some dark suffusion round them, the latter with grey centre, an indistinct submarginal line with a

190 NOCTUID E.

dark dash on it below the costs, a marginal irregular lumulate line. Hind wing pale yellow, with a broad fuscous marginal band. Hab. Pangi, Ladak, Sikhim. Exp. 48 millim.

1653 Agrotis pronuba, Linn Syst Nat p 842, Boisd Chen Noct pl 13, figs 4, 5, 6 (laiva)
Agrotis innuba, Tierische, Eur Schmett v, 1, p 265
Triphæna pionuba, var hoeger, Herr-Schuffer, Neue Schmett p 25, figs 117, 118
Triphæna subsequa. Koll (nec. Tiertsche) Hugel's Kaschwar vy

Triphena subsequa, Koll (nec Treitsche) Hugel's Kaschmir, 1v, p 478

Head and collar brownsh white, the latter with a red-brown line through it and dark tip, pilpi red-brown at sides, thorax red-brown or fuscous, abdomen reddish ochreons. Fore wing greyish fuscous or red-brown, the medial and inner areas suffused with fuscous, the subbasal, ante- and postmedial double waved lines somewhat indistinct, orbicular filled in with grey, the reinform with fuscous, the claviform obsolete, the waved submarginal line defined with black below the costa, a marginal lumilate line Hind wing bright yellow, with a broad irregular submarginal black band

Larva yellow, with the ventral area green, a series of short subdorsal black streaks, the stigmata black, or purplish grey, with a yellow dorsal line and yellow marks below the black streaks, or purplish grey varied with blown, the ventral area green, a lateral brown and yellow line

Hab Europe, Dharmsda Evp 60 millim

*1654 Agrotis 2 cupi ea, Mooi e, P Z S 1867, p 64, C & S no 2272

Dark red-brown Fore wing with double waved subbasil and antemedial black lines, the orbinals and clariform spots large and black, a black quadrate spot in end of cell, the reniform with black outline, the median nervine, discoccilulais, and bases of veins 3, 4, 5 pale, a pale submarginal line with a series of black spots on its inner edge, a waved black marginal line. Hind wing copper-colour

Hab "Bengal" Exp 56 millim

Genus AMPHIPYRA

Amphipyra, Ochs Schmett Eu: 1v, p 70 (1816) Apopestes, Hubn I e:z p 275 (1818)

Type, A tragopogonis, Linn, from Europe Range Europe, Japan, Himalayas, Khási Hills

Eves naked and without Irshes, probosers fully formed, palprentured, the 2nd joint reaching vertex of herd the 3rd prominent, antennæ simple in both sexes, thorax and abdomen without tufts, the latter flattened, tibiæ without spines. Fore wing of rather even breadth throughout, the outer margin nearly erect. cilia cienulate.

SECT 1 (Amphipyra) Palpi with the 2nd joint smoothly scaled

Amphipyra monolitha, Guen Noct 11, p 414, C & S no 2258 Amphipyra surnia, Feld Reis Nov pl 112, fig 17

Head and thorax dark chocolate, abdomen fuscous Fore wing with the waved subbasal and antemedial double lines filled in with

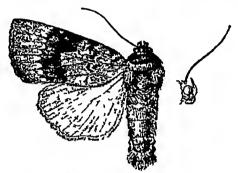


Fig 118 -Amphipyra monolitha, & 1

silvery grey, the orbicular small and silvery, the postmedial waved line bent inwards below the costa, and with diffused silvery grey on its outer edge, a submarginal series of ill-defined silvery-grey lunules, those towards the costa having black streaks inside them and joined by grey streaks to a marginal series of specks Hind wing coppery red, the costal area suffused with red-brown, underside with cell-spot and broad marginal band. The silvery grey of fore wing may be replaced by pale brown

Hab Japan, N China, Dharmsala, Sikhim Evp 66 millim

1656 Amphipyra magna, Will Cat xxiii, p 868, C & S no 2257 Amphipyra chalcoptera, Feld Reis Nov pl 112, fig 18, C & S no 2254

Differs from monolitha in the head, thoiax, and fore wing being pale red-brown irrorated with black scales, the last with a broad medial black-brown band, the subbasal and postmedial lines more prominent and waved, the orbicular larger, the submarginal dark and pale lunules more prominent and joined to the marginal specks by dark streaks. Underside of both wings with postmedial diffused band

Hab NW Himalayas, Punjab Eip 70 millim

1657 Amphipyra livida, Schiff Wien Verz p 85
Amphipyra corvina, Motsch Bull Soc Nat Mosc XXXIX, 1,
p 194 (1866)
Amphipyra corvus, C & S no 2255

Head, thorax, and fore wing dark shining purplish fuscous, the vertex of head sometimes pale reddish, abdomen fuscous. Hind wing pale, suffused with coppery ied, the apical area with fuscous Hab Europe, Japan, China, Khásis. Erp 48-52 millim

- 1658 Amphipyra cupreipennis, Moore, Lep Ath p 155, C & S no 2256
- 3 Differs from livida in having slight traces of a curved dark medial band on the fore wing. Hind wing deep coppery red, the costal area brown

Hab Sikhim Eap 66 millim

1659 Amphipyra albicilia, n sp

Q Head, thorax, and abdomen reddish grey Fore wing reddish grey, the veins slightly streaked with black, the subcostal, ante-and postmedial double waved lines indistinct, lumilate postmedial and marginal lines, a pale reddish streak from middle of cell to near outer margin, with an ill-defined dark streak below it, a dark streak from base in interno-median interspace, becoming pale red from below the middle of cell. Hind wing coppery red, with white margin and cilia. Underside coppery red, with broad costal white band to fore wing, both wings with a broad marginal white band and whitish lumile at end of cell.

Hab Mussooree (Harford) Exp. 58 millim. Type in B M

SECT II (Apopestes) Palpi with the 2nd joint clothed with long hair in front

1660 Amphipyra spectrum, Esp Schmett Eur 1v, 1, p 131, pl 100, figs 3, 4, Dup & Guen Noct pl 1 (larva), C & S no 2805 Noctua socrus, Giorna, Cal Ent 143 Noctua genistes, Vill Ent Linn 11 p 272, no 339 Amphipyra phantasma, Eversm Bull Soc Nat Mosc xv1, 1843, p 546, C & S no 2304 Apopestes indica, Moore, P Z S 1883, p 22, C & S no 2303 Anthophila hyaminosa, C & S no 1886 (nec Eversm)

Ochreous brown; head and thorax morated with black scales. Fore wing irrorated with black scales, a short basal black line from the costa with a spot below it, a strongly waved antemedial line, traces of a medial line, an irregularly waved prominent postmedial line bent outwards round end of cell, remitorm with indistinct greyish outline, a submarginal series of pale specks with blackish patches inside them towards inner margin, a series of marginal specks. Underside with narrow medial black band to both wings.

The variety phantasma has the fore wing more mottled with

black, the transverse lines less prominent

Larva Yellowish green, with two broad black subdorsal lines filled in with yellow, below this is a band of blue with dark spots on it, then yellow with black specks, then a band of blue with the stigmata dark, and some irregular black strie above the claspers.

Hab Europe, Persia, Quetta, Afghanistan, Hazara, NW

Punjab, Yarkand, Dharmsala Exp 80 millim.

1661. Amphipyra himalayica, n sp

3 Differs from spectrum in being greyish ochreous-brown without black irroration. Fore wing with the transverse lines but slightly darker than the ground-colour and with ochreous outlines, the subbasal line absent, the antemedial nearer the base and minutely dentate, the postmedial lumilate, a submarginal irregularly lumilate line, the remform represented by a lumile at end of cell. Underside with indistinct cell-spot and postmedial pale line to both wings

Hab Murree (Harford) Exp 52 millim Type in B M

Genus EPILECTA

Epilecta, Hubn Verz p 220 (1818)

Type, E linogrisea, Schiff, from Europe Range Europe, Japan, Himalayas

Differs from Agrotis in the fore table not being spined, the autennæ ciliated

1662 Epilecta semiherbida, Will Cat xi, p 743, Butl Ill Het vi, pl 110, fig 1, C & S no 2031
Epilecta decorata, Butl A M N H (5) iv, 1879, p 361

Head, thorax, and fore wing variegated with green and brown shades, palpi black at sides, abdomen fuscous brown Fore

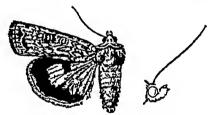


Fig 119 — Epilecta semiherbida, of 1

wing with the subbasal, ante- and postmedial double waved lines distinct, the two former with a black speck in the cell between them, the orbicular and reniform fuscous, their inner and outer edges defined by black lines, the claviform obsolete, the waved submarginal line with a black spot on it below the costa, a marginal series of lunules. Hind wing bright yellow, with a large black cell-spot, a black fascia along the costa joining the broad in regular submarginal black band.

Hab Japan, Dharmsála, Sikhim Evp 44 millim

Genus AUCHA

Aucha, W7k Cat x111, p 1137 (1857)

Type, A velans, Wlk
Range Bombay, Ceylon, Burma, Penang
VOL 11

Eyes naked and without lashes, proboscis fully developed, palpi upturned and smoothly scaled, the second joint reaching above vertex of head, the third short Antennæ simple Thorax and abdomen without tufts and smoothly scaled, tibiæ without spines Fore wing with the cilia not crenulate, hind wing produced at apex

1663 Aucha velans, Will Cat xm, p 1138, Hmpsn Ill Het 1x, pl 162, fig 15, C & S no 2350

Head and thorax dark brown, abdomen fuscous brown Fore

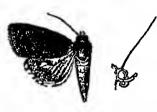


Fig 120 Aucha velans, J.

wing dark brown, with faint traces of the usual waved lines and the orbicular and reniform Hind wing black-brown; an orange band, sometimes suffused with brown, beyond the cell and below its lower angle, an orange marginal streak at anal angle, cilia orange, streaked with fuscous Underside fuscous brown, hind wing with the disk and anal angle tinged with orange, a cell-spotand broad marginal dark band

In some specimens the head, thorax, and fore wing are suffused with olive-green

Hab Ceylon, Burma. Exp 40 millim.

1664 Aucha nectens, Wth Cat xv, p 1704, C & S no 2349 Briarda latipennis, Wth Cat xxxiii, p 894

Differs from velans in the head, thorax, and fore wing being olivaceous grey, the last with diffused antemedial, medial, and submarginal bands often developed, the waved lines usually well marked. Underside with the basal half of both wings suffused with orange.

Hab Bombay, Penang Exp 44 millim

Genus HYPERNÆNIA, nov.

Type, H denticulata, Warr Range Himalayas, Burma

Differs from Epilecta in the fore wing being broader, the apex more produced, and the outer margin more oblique, the cliacrenulate

SECT I Palpi with the 3rd joint short

1665. Hypernæma denticulata, Warr P Z S 1888, p 307, C & S no 2022 A

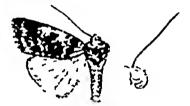
Fuscous with a slight reddish tinge Fore wing with the costal area paler, the subbasal and antemedial double waved lines very

indistinct—the orbicular and reniform indistinct—the postmedial line very highly dentate from the subcostal to vein 2—the area beyond the irregularly wived submarginal line paler—Hind wing fuscous—the cilia white

Hab Thandrim Punjab Exp 60 millim

1666 Hypernænia atrovirens WW Cat xxxii p 614 C 5 8

Head and thorax clothed with black brown and grev scales abdomen fuscous. I ore wing clothed with black and olive scales, subbisal and anteniedial double waved black lines, some pinkish brown below base of median nervice and beyond the cost il part of anteniedial line, the orbicular and reinform with black and white edges and pinkish brown centres the area between them black an indistinct waved medial black line, the postniedial limibite black line with pale marks in the smartions, some white specks on cost i towards apex, a submarginal series of arregularly placed black



Tig 121 - Heye or effective to

lumiles with reddish brown beyond them—a marginal series of small black himides—cala white and fuscous—Hind wing dirly fuscous the cala whitish—Underside fuscous black—fore win with white orbical ir and reinform stigmats and postinedial black hine—bind wing with the basal two thirds suffused with white—a cell-spot and postmedial line—

Hab Sikhim, Ringoon | Exp 48 million

1667 Hypernænia nigroviridis B.b. Cell xxxn, p. 615, Cell S. no. 1761

Differs from affective somethic based two-thirds of fore wing become fifthesed with silvery green. The subbased, and a chief, medial, and postuncial lines indistinct. The outer third of wing coppers and brown with the submarginal finules contour Land illebiated as blue greekland inside the marginal linules. I necessal of ferware with marking blue greekland. The land was less suffice a with white

 Pe^{T} Sähma – L(p) 50 millen

between the subbasal and antemedial lines, reniform pure white, the lunulate postmedial line indistinct, the submarginal line consisting of an irregular series of dashes, a marginal series of white specks. Hind wing fuscous. Underside of fore wing with the reniform white, hind wing whitish, with prominent dark cell-spot and postmedial line, outer area suffused with fuscous.

Hab Sikhim Exp 38 millim

1669 Hypernæma violacea, Butl Ill Het vii, p 54, pl 127, fig 5.

Head, thorax, and fore wing dark purplish brown, the last with faint traces of ante- and postmedial waved lines and medial and submarginal diffused bands, the orbicular and reniform barely traceable Abdomen and hind wing dark fuscous, the former with the extremity red-brown Underside with the postmedial line more prominent

 $Ha\bar{b}$ Dharmsála Evp 52–60 millim

SECT II Palpi with the 3rd joint long

1670. Hypernænia flavicaudata, Warr P Z S 1888, p 312, C \S S no 2256 A

Q Pale violaceous brown with an ochreous tinge, anal tuft ochreous. Fore wing brown, subbasal and antemedial waved lines, between which are two diffused waved bands, a medial diffused band, the postmedial waved line excurved beyond cell, the submarginal line irregularly waved and with a diffused band before it, a lunulate marginal line. Hind wing fuscous with an ochieous tinge, the costal area and outer margin ochreous. Underside with a faint cell-spot and postmedial line to each wing

Hab Thandiáni, Punjab Exp 56-60 millim

Genus HERMONASSA

Hermonassa, Will Cat xxxxx, p 631 (1865)

Type, H consignata, Wlk Range Japan, Himalayas

Differs from Agrots in having the palpi upturned and clothed with long hair below running out to a sharp point, the 3rd joint reaching above vertex of head. Fore wing long and narrow, with the apex rounded. Hind wings with veins 3 and 4 from cell, 6 and 7 stalked.

1671. Hermonassa consignata, Wik Cat XXII, p 632, C & & no 2034 Hermonassa lunata, Moore, Lep Ath p 120, C & S no 2037

Red-brown Fore wing with a double waved subbasal line with



Fig 122 Hermonassa consignata, &

black marks on its edges, a double antemedial waved line traversed by the black claviform, the orbicular and reniform stigmata black with pale edges, sometimes with a fuscous patch between them, a double postmedial curved and waved line, a waved submaiginal line, a maiginal series of Hind wing pale brownish lunules fuscons

> The form consignata is dark redbrown, lunata chestnut-brown

Hab Kashmir, Dharmsála, Sikhim Eip 30 millim

- 1672 Hermonassa spilota, Moore, P Z S 1867, p 55, C & S no 2026
- 2 Differs from consignata in the costal area of the fore wing being suffused with grey to near the apex, the transverse lines quite obsolete, the orbicular an elongate oval, the claviform more elongate, the veins pale, a marginal series of black specks Hab "Bengal" Erp 30 millim
- 1673 Hermonassa incisa, Moore, Lep Ath p 120, C & S no 2036

Differs from consignata in being browner Fore wing with the transverse lines very indistinct, the submarginal line more dentate Hind wing fuscous

Hab Dharmsála, Sikhim Eip 38 millim

- 1674 Hermonassa chalybeata, Moore, P Z S 1881, p 353, pl 38, ing 17, C & S no 2033
- Differs from uncisa in the head, thorax, and fore wing being dark cupreous brown, the last with all the markings indistinct The Kumaon specimen is rather duller brown Hab Kumaun, Sikhim Erp 34 millim
- 1675 Hermonassa lanceola, Moore, P Z S 1867, p 59, C & S no 1938

Differs from consignata in being paler and more olive-brown, the orbicular kidney-shape, the hind wing dark brown Hab Sikhim Evp 33 millim

1676 Hermonassa sinuata, Moore, P Z S 1881, p 353, pl. 38, fig 5, C & S no 2038 Hermonassa cuprina, Moore, Lep Ath p 120, C & S no 2035

Differs from consignata in being bright reddish chestnut Foie wing with no black markings, some dentate marks beyond the subbasal line, the orbicular, reniform, and clauform filled in by the ground-colour Hind wing dark fuscous

The form cuprina is darker than sinuata, the hind wing black-brown

Hab. Sikhim Exp 44 millim

Genus HADENA

Hadena, Schrank, Fauna Boica, 11, 2, p 158 (1802) Mamestra, Ochs Schmett Eur 17, p 76 (1816) Neuria, Guen Ann Soc Ent Fr x, p 241 (1841)

Type, H cucubali, Schiff, from Europe Range Universally distributed

Eyes hairy, palpi upturned and clothed with long hairs, the 3id joint short, antennæ of male ciliated. Thorax squarely scaled and flattened, abdomen with dorsal tuits on proximal segments, tibiæ not spined. Wings short and broad, hind wing with veins 3 and 4 from cell or on a very short stalk.

SECT I Fore wing short and broad

1677 Hadena trifolii, Rott Naturf ix, p 131 Noctua chenopodii, Fabr Mant Ins ii, p 156

Pale brown Fore wing with three highly-waved lines before the middle, orbicular and reniform dark ringed, the former with pale centie, the latter with dark, claviform a black lumile, a curved, dentate, dark, postmedial line, a pale irregularly waved submarginal line with a W-mark at centie, some small dark lumiles on margin, cilia with pale streaks. Hind wing pale, the veins and a broad marginal band fuscous, cilia white

Hab Europe, Campbellpur Evp 36 millim

1678 Hadena perdentata, n sp

Q Head, thorax, and abdomen clothed with dark brown, redbrown, and grey hair Fore wing pale brown, suffused with leaden grey, subbasal and antemedial ochreous dentate lines with black edges, the latter highly dentate above inner margin, the orbicular ochreous with brown centre, the remiform leaden grey, with ochreous inner edge, the claviform very large, with black outline and a pale dentate patch beyond it, a crenulate postmedial line, an ochreous submarginal line very highly dentate at centre and with some dark suffusion inside it. Hind wing fuscous brown, with the cilia whitish. Underside with cell-spot and postmedial line.

Hab Kashmir (McArthur) Exp 42 millim Type in coll Leech

1679 Hadena consanguis, Guen Noct 11, p 97, C & S no 2050
Apamea undiciha, Wlk. Cat 1x, p 251
Hadena media, Wlk. Cat 1x, p 756, C & S no 1939,
Apamea latifasciata, Moore, P Z S 1881, p 345, C & S no 2054
Apamea viriata, Swinh P Z S 1885, p 450, C & S no 2063
Apamea cana, Hinpsi Ill. Het viii, p 79, pl 145, fig 8

Differs from trifoli in the pale clothing of the head, thorax, and abdomen being mixed with dark hairs. Fore wing much suffused with fuscous, especially the medial area and beyond the submarginal line, which is indistinct and with the W-mark not very prominent Hind wing scarcely paler at base



Fig 123 -Hadena consanguis, &

The form cana from the Nilgiris is ochreous or pinkish ochreous, with the dark suffusion of fore wing confined to round the reniform, the hind wing paler. In media and latifasciata=viriata the head and thorax are dark red-brown, fore wing with the suffused areas dark red-brown, the pale area with a reddish tinge, the area beyond the postinedial line prominently pale with some reddish dentate marks on it in the latter, from NW India and Bombay, the hind wing is suffused with fuscous, in the former, from Canara and the Nilgiris, white with a dark marginal line

Hab Throughout Peninular India and Ceylon Erp 34-38

millim

1680 Hadena nigrocuprea, Moore, P Z S 1867, p 52, C & S no 2077

d Head, thorax, and fore wing very dark red-brown, the last with the usual transverse lines very indistinct, the orbicular and reinform large and indistinct, the latter with two white specks at its lower extremity, the claviform with black outline, four white specks on costa towards apex. Abdomen and hind wing fuscous

Hab Sikhim $E \cdot p$ 3 $\frac{1}{4}$ milhim

*1681 Hadena hastata, Moore, Lep Ath p 130, pl 4, fig 20 C & S no 1936

Red-brown Fore wing with a prominent grey-edged sinuous antemedial black line, double below the cell, orbicular and reniform with black outlines, a black streak below the cell recurved at extremity, a curved postmedial pale-edged crenulate line, a marginal series of black specks. Hind wing white with a reddish tinge, an indistrict cell-spot.

Hab Sikhim Eip 33 millim

1682 Hadena mediana, Moore, P Z S 1881, p 332, C & S no 1776

Ochreous white Abdomen slightly fuscous Fore wing irrorated with dark scales, a black subbasal line, minutely dentate anteand postmedial lines, the former oblique, the latter excurved beyond
the cell, the area between them brown, with the orbicular and
reinform grey and conjoined, a marginal series of dark specks
Hind wing fuscous, the cilia whitish Underside with cell-spot
and postmedial series of specks, both wings with marginal series
of specks

Hab Simla Evp 34 millim

1683 Hadena elwesi, n sp

Journal of Violaceous grey, variegated with black. Fore wing with the medial area darkest, double subbasal and antemedial waved black lines, the orbicular, reniform, and a spot below the cell grey, the first with a black speck at centre, the postmedial line crenulate, the submarginal irregular line ill-defined, a marginal series of black specks. Abdomen and hind wing dark fuscous, the latter with the base of cilia pale. Underside with cell-spot and postmedial line.

Hab Sikhim, 10,000 feet (Elwes) Exp 36 millim Type in

coll Elwes

SECT II Fore wing rather longer and narrower

A Antennæ of male minutely cihated

1684 Hadena dissecta, Wil Cat xxxii, p. 656, Moore, Lep Ceyl in, pl 146, fig 7, C & S no 2143

Head and thorax dark brown Abdomen fuscous, pale at extremity Fore wing dark brown, the veins ochreous, the subbasal, ante- and postmedial double lines ochreous, the second curved, the last angled beyond the cell and met by a streak from apea, an ochreous doubly-curved submarginal line Hind wing fuscous brown

Hab Sikhim, Ceylon Exp 45 millim

1685 Hadena costigera, Moore, P Z S 1881, p 350, C & S no 2022

Head, thorax, and abdomen grey-brown, palpi dark at sides Fore wing grey-brown, suffused with black and reddish brown, a broad pinkish-white costal fascia from the base to postmedial line, subbasal, ante- and postmedial waved double black lines, the last incurved at vein 3, orbicular and reniform grey, with whitish edges, claviform almost obsolete, the submarginal line pale, angled below the costa and with some dark marks on each side of it. Hind wing whitish, the outer area suffused with fuscous

Hab NW Himalayas, Khásis Eip 42 millim

BADENA 201

1686 Hadena incisa, Moore, P Z S 1881, p 344, C & S no 2144
Neuria auripicta, Butl Ill Het vii, p 53, pl 127, fig 3

Head and thorax dark grey and fuscous Abdomen pale fuscous Fore wing dark grey, suffused with black, subbasal and antemedial waved white lines, the orbicular and reniform with whitish outline and fuscous centres, the latter large, a white streak on vein 2 and ochreous fascia on inner margin, the curved postmedial dark line lumilate, with some white on it below vein 2, a submarginal ochreous waved band angled below costa, a series of marginal black specks, cilia pale streaked. Hind wing fuscous, with traces of a postmedial line. Underside with prominent cell-spot and postmedial line to hind wing

Hab Dharmsála Erp 40 millim

1687 Hadena simillima, Moore, P Z S 1881, p 344, C & S no 2147

Q Differs from incisa in being redder. Fore wing with the subbasal ante- and postmedial double lines not filled in with white, the reniform with an ochreous patch on its outer side, the submirginal line nariow, with dark lunules before it, cilia not pale streaked. Hind wing ochreous white, slightly suffused with fuscous towards outer margin. Underside without cell-spot on postmedial line.

Hab NW Himalayas, Sikhim Erp 38 millim

1688 Hadena ferrisparsa, n sp

Differs from massa in the ground-colour of thorax and fore wing being pale grey-brown, the latter without the pale fasciæ on inner margin and vein 2, the orbicular larger, some rust-red before the submarginal line Hind wing with the basal area whitish

Hab Simla, Dalhousie (Harford) Erp 42 millim Type in B M

1689 Hadena nagaensis, n sp

Q Differs from *incisa* in the subbasal and antemedial lines of fore wing being dark, the pale fascia on inner margin and submarginal line tinged with rufous, no pale streak on vein 2, the orbicular large and dark—the remform dark and S-shaped

Hab Nága Hills, 6000 feet (Doherty) Exp 40 millim Type

in coll Elwes

1690 Hadena poliostigma, n sp

Q Fuscous, suffused with grey Fore wing with traces of subbasal and antemedial lines, the orbicular and reniform large and whitish, a black streak below the cell, indistinct postmedial and submarginal lines, the former excurved round the reniform.

the latter with a series of dentate marks on it Hind wing brownish fuscous, the cilia whitish

Hab Sind Valley, Kashmir (Leech) Exp 38 millim Type in coll Leech

1691 Hadena brassicæ, Linn Syst Nat p 852, Hubn Eur Schmett, Noct pl 18, fig 88, C & S no 2069, Buckler, Lance Brit Butterf Moths, pl 66, fig 3 (larva) Noctua albidilinea, Haw Lep Brit p 191

Dark brown Fore wing with indistinct double subbasal, anteand postmedial dark lines, the last incurved at 3rd median nervure, orbicular and reniform stigmata grey, the latter with some white on it, a black dash between them, claviform black, an irregular pale submarginal line, the W-mark distinct, a series of marginal dark lunules, some pale costal specks Hind wing fuscous brown, the cilia with a pale line through them

Larva dark or pale green, with subdorsal and lateral darker specks and slight longitudinal and transverse lines, or dark purplish fuscous with short dark streaks, the ventral area green,

a lateral series of white specks

Hab Europe, NW Himalayas, Punjab Eap 52 millim

1692 Hadena repetita, Butl Ill Het vii, p 52, pl 127, figs 1, 2

Differs from brassics in being ferruginous red Fore wing reddish otherous, irrorated and suffused with ferruginous, the lines very indistinct, orbicular and reniform fuscous, often white-edged, claviform small, ferruginous, and obsolescent, the submarginal line very indistinct, with the W-mark obsolescent Hind wing reddish fuscous

Hab Dharmsála Evp 46 millim

- 1693 Hadena cuprina, Moore, P Z S 1881, p 345, pl 38, fig 2, C & S no 2051
- Q Head, thorax, and abdomen brown Fore wing dark cupreous red-brown, the usual transverse lines very indistinct, the orbicular and remform greyish fuscous, the former oblique, three white specks on costa towards apex. Hind wing brownish fuscous

Hab Sikhim, Exp 42 millim

1694 Hadena nigerrima, Warr P Z S 1888, p 302, C & S no 2076 A

Differs from brassice in being black-brown Fore wings with the markings very indistinct, the orbicular reniform, and claviform just traceable, two white specks at lower angle of cell, the waved submarginal line very indistinct, with the W-mark barely traceable Hind wing dark fuscous

Hab Thandiáni, Punjab, Sikhim Eap 46-52 millim.

HADENA 203

1695 Hadena scotochlora, Koll Hugel's Kaschmir, iv, p 482 Polia stevensii, Guen Noct ii, p 38, C & S no 1766

Head and thorax variegated grey and black, abdomen fuscous Fore wing variegated grey and black, with double waved subbasal antemedial, postinedial, and submarginal lines filled in with white, a single waved medial black line, the orbicular and remiform large and whitish with black outlines, a marginal series of quadrate black spots. Hind wing fuscous, with a whitish patch at anal angle, underside whitish, with cell-spot and indistinct postmedial line.

Hab Thandiani, Punjab, Kashmir Eup 55 millim

1696 Hadena indica, Moore, P Z S 1867, p 47, C & S no 1769

Differs from scotochlor a in being much darker and browner, the orbicular and reniform without white edges, the former small and round

Hab "Bengal', Nágas Eup 44 millim

1697 Hadena flavala, Moore, P Z & 1867, p 46, C & S no 1768

Head and thorax white irrorated with black, abdomen pale brown, with dark dorsal tufts and extremity. Fore wing brownish grey, some irrigular ba-al black streaks, a slightly dentate antemedial and obliquely lumulate postmedial line, orbicular and reniform small black ring-spots, with whitish patches on the costa above them an indistinct medial line angled below the costa, an irregularly dentate submarginal black line. Hind wing pale yellow, the basal and inner areas suffused with pale fuscous, a pale fuscous diffused submarginal band.

Hab Sikhim Eup 40 millim

1698 Hadena knyvetti, n sp

d Head whitish, black below, collar whitish, thorax greyish black, abdomen ochieous white, slightly ringed with fuscous, the extremity ochreous. Fore wing greyish fuscous, variegated with black, the subbasal black line on a large whitish patch, below which is a black linule, the anteinedial line oblique and white, with black outline, the orbicular large, white, and extending to the costa as a white patch, the reniform indistinct, the postmedial line slightly waved and inwardly oblique, the submarginal line white and broad, with white patches at apex and centre, a marginal series of black specks. Hind wing pale fuscous, underside with cell-spot and postmedial line.

Hab Sikhim (Knyvett) Erp 40 millim Type in coll Knyvett

1699 Hadena albiceps, n sp

d Head and collar white, thorax dark chestnut, with a white patch on metathorax, abdomen fuscous black, legs black and

white. Fore wing white, slightly irrorated with black, a subbasal black line interrupted at middle, a short oblique antenedial line from the costa, a rectangular hoop-shaped mark on centre of inner margin, two medial black specks on the costa and a triangular patch before the apex, a comma-shaped mark beyond the cell, a series of black spots on the cilia. Hind wing smoky black, the cilia white, underside with indistinct cell-spot and postmedial line.

Hab Sikhim (Knyvett) Evp 34 millim Type in coll Knyvett

B Antennæ of male fasciculated

1700 Hadena mamestrina, Butl Ill Het vu, p 59, pl 128, fig 5

3 Differs from brassica in the reniform being filled in with white, the submarginal line of fore wing consisting of white lumiles on dark streaks Hind wing pale fuscous

Hab Dharmsála Exp 50 millim

1701. Hadena fasciculata, n sp

d Head, thorax, and abdomen red-brown, collar with pale fringe Fore wing pale red-brown, variegated with grev, the subbasal and antemedial lines slightly waved, the orbicular and reinform large and grey, with black outlines, the latter with fuscous centre, claviform a large black lunule, traces of a medial line, the post-medial lunulate excurved line outlined with grey near the costa, the submarginal line pale and nearly straight, broadest towards the costa, and with black diffused marks on each side of it at middle, and inside it near costa and inner margin a crenulate marginal line. Hind wing fuscous, a marginal grey line, the cilia rufous, underside with prominent cell-spot and sinuous post-medial line.

Hab Sikhim (Knyvett) Exp 54 millim Type in coll Knyvett

C Antennæ of male heavily bipectinated

1702 Hadena culta, Moore, P Z S 1881, p 347, C & S no 2072

Dark purplish red-brown, a black line on collar Fore wing with indistinct double subbasal and antemedial waved lines and postmedial dentate line, a short oblique golden striga with black outer edge below base of median nervure, a golden and black mark on claviform, the orbicular and reinform large and indistinct, the latter with golden and black at its lower extremity, a submarginal sinuous series of golden and black lumiles, a marginal series of small black lumiles. Abdomen and hind wing brown, the latter slightly suffused with grey, underside with lumile at end of cell and indistinct postmedial line.

Hab Dalhousie Exp 58 millim

SECT III Fore wing longer and narrower

1703 Hadena pannosa, Moore, P Z S 1881, p 345, id Lep Ceyl 111, pl 147, fig 1, C & S no 2059

Apamea sikkima, Moore, Lep Atk p 109, C & S no 2061

Dark brown Fore wing with the subbasal, ante- and post-medial double lines pale-centred, the second highly angled near inner margin, and with ochreous patches before it below the cell, the orbicular and reniform greyish, the claviform small, a diffused pale patch from beyond the postmedial line to outer angle, a prominent pale dentate apical patch Hind wing fuscous, the cilia pale with a line through them

The form sikkima is rather redder, the claviform larger, no pale patch beyond the postmedial line, and the apical patch

obsolescent

Hab Sikhim, Nilgiris, Ceylon Exp 40-50 millim

Genus SEMIOPHORA

Semiophora, Steph Ill Brit Ent, Haust n, p 138 (1829) Tæmiocampa, Guen Ann Soc Ent Fr viii, p 477 (1839)

Type, S gothica, Linn, from Europe

Range N America, Europe, Japan, NW Himalayas

Eyes hairy, head deeply inserted in thorax, proboscis fully developed, palpi porrect, extending beyond the frons, clothed with long hair below, and the third joint prominent, antennæ bipectinated in male, thorax evenly rounded, abdomen without tufts, tibiæ without spines, and clothed with long hair. Fore wing rather long and narrow

1704 Semiophora orthosioides, Butl Ill Het vii, p 56, pl 128, fig 1

Palpi very long, branches of antennæ long in male Head and



Fig 124 Semiophora orthosioides, &

thorax clothed with grey and dark scales, abdomen pale brown Fore wing pale brown irrorated with dark scales, traces of subbasal and antemedial and a more distinct curved medial line, a black spot at lower angle of cell, a pale submarginal line with some dark suffusion beyond it Hill wing fuscous

Hab Mandi, NW Himalayas Evp 30 millim

1705 Semiophora ferrosticta, n sp

d Grey, antennæ and abdomen tinged with rufous Fore wing slightly irrorated with fuscous, a fuscous streak on basal inner area, traces of a sinuous antenedial line, the orbicular and reniform large and indistinct, with ferruginous and dark brown

lower edges, a diffused medial fuscous band passing between the stigmata, an indistinct crenulate postmedial line, an indistinct submarginal line with prominent ferruginous and dark specks on it, a marginal series of dark specks. Hind wing pale fuscous, the cilia whitish

Hab Kashmir (McAithur) Exp 42 millim Type in coll Leech

1706 Semiophora castaneipennis, n sp

3 Bright chestnut Fore wing irrorated with black specks and strige, traces of subbasal and antemedial lines, the orbicular and reniform indistinct, with a chestnut patch between them and before the orbicular, an indistinct curved postmedial line with interrupted rufous marks beyond it. Hind wing fuscous, the cilia rufous

Hab Kashmir (McArthur) Exp 42 millim Type in coll Leech

Genus BOMBYCIA

Bombycia, Steph Ill Brit Ent, Haust m, p 57 (1829) Cleoceris, Boisd Ind Meth p 93 (1840)

Type B viminalis, Fabr, from Europe

Range Europe, Himalayas

Eyes naked and lashed, proboscis fully developed, palpi obliquely porrect and hairy, thorax and abdomen without tufts, tibize without spines. Fore wing long and narrow, the apex somewhat acute

The typical species (Sect I) has the antennæ of male bipectinated, with short branches

SECT II Antennæ of male with fasciculated cilia, palpi with the 3rd joint minute

1707 Bombycia persimilis, n sp Raphia viminalis, Butl (nec Fabr) Ill Het vii, p 11

Brown, with a slight reddish tinge Fore wing with a black

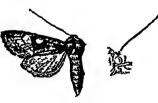


Fig 125 Bombycia persimilis, 3

streak from the base below median nervure, the subbasal and antemedial double waved lines indistinct, the orbicular and reniform large and pale with black outlines, claviform, a large black lunule, the postmedial double waved line incurved to lower angle of cell, the submarginal irregular line pale, cilia with slight pale streaks Hind wing with cell-spot and faint postmedial line below

Hab Dharmsála (Hocking) Evp. 36 millim Type in B M

1708 Bombycia leucocera, n sp

Q Brownish grey Fore wing with short dark subbasal line, sinuous antemedial line interrupted by the ochreous claviform streak, the orbicular and reniform white with black edges, the former small, the latter narrow and angled inwards on median nervure, a slightly crenulate postmedial line, very much bent outwards below costa, a pale, nearly straight, submarginal line, with a series of black marks on it

Hab Sind Valley, Kashmir (Leech) Eip 46 millim Type in coll Leech

1709 Bombycia meterythra, n sp

d Head and thorax pale, suffused with pink, abdomen ochreous Fore wing pale suffused with brown, rufous, and pink, the medial area reddish, an indistinct subbasal line, a sinuous oblique antemedial line, a curved crenulate postmedial line and indistinct dentate submarginal line with rufous suffusion inside it, the orbicular and remiform large, prominent, and black, with pink centies Hind wing bright red, the cilia ochreous

Hab Murree Exp 36 millim Type in B M

SECT III Antennæ bipectinated, the branches long, palpi with the 3rd joint long and porrect

1710 Bombycia rubida, n sp

of Antennæ fulvous, head, thorax, and abdomen greyish red Fore wing greyish red, a large chestnut patch at end of cell surrounding the indistinct reniform, some dark suffusion on centre of inner margin, an almost straight pale and chestnut submarginal line. Hind wing reddish fuscous, cilia of both wings rufous. Underside with cell-spot and traces of a postmedial line to both wings.

Hab Sikhim, 10,000 feet (Elwes) Erp 47 millim Type in

coll Elwes

Genus EUPLEXIA.

Euplevia, Steph Ill Brit Ent, Haust iii, p 3 (1829)
Trachica, Hubn Verz p 219 (1818), non descr
Luperina, Boisd Ind Meth p 113 (1840)
Prospalta, Will Cat viii, p 1114 (1857)
Triphienopsis, Butl A M N H (5) i, p 163 (1878)
Chutapha, Moore, Lep Ath p 131 (1882)
Kaiana, Moore, Lep Ath p 106
Chandata, Moore, Lep Ath p 113
Eurabila, Butl Ill Het vii, p 39 (1889)

Type, E lucipaia, Linn, from Europe

Range Nearctic and Palæarctic regions, throughout India, Ceylon, and Burma, Fig.

Eyes naked, with or without lashes, proboscis fully formed, palpi upturned, the second joint not reaching vertex of head and tringed with hair, the third prominent. Thorax with a slight tuit of outspreading hair behind the collar and paired tuits on metathorax. Abdomen with dorsal tuits on proximal segments, tibize without spines. Fore wing with the cilia crenulate

SECT I Antennæ of male quite simple

1711 Euplexia nubilata, n sp

of Head, thorax, and abdomen clothed with dark and greybrown scales. Fore wing reddish brown, the basal area as far as the antemedial line and the area between the medial and submarginal lines clouded with glossy fuscous, double subbasal, antemedial, medial, and postmedial, and single submarginal lines, the first three waved, the two latter lunulate, orbicular round, with dark centre, remiform a dark lunule. Hind wing whitish, with traces of fuscous postmedial and submarginal lines, apical area suffused with fuscous, underside with prominent cell-spot and postmedial line.

Hab Sikhim, 6000 feet (Möller) Exp 46 millim Type in

coll Elwes

SECT II Antennæ ciliated in male

A Hind wing not yellow

1712 Euplexia indistans, Guen Noct 11, p 87, C & S no 1937 Hadena meetricans, Will Cat av, p 1729 Hadena distans, Moore, Lep Ath p 130, C & S no 1935

Pale reddish brown Fore wing with indistinct, waved, double subbasal, ante- and postmedial dark lines, the orbicular and remiform indistinct and often filled in with white, a submarginal series of lumiles. Hind wing pale fuscous. Underside with the basal half of both wings suffused with ferruginous in male.

Hab NW Himalayas, Bombay, and throughout S India and

Ceylon $E \iota p$ 34 nullim

1713. Euplexia niveiplaga, Will Cat xi, p 593, C & S no 1940
Hadena confundens, Will Cat xi, p 757
Agrotis quadrisigna, Moore, P Z S 1881, p 350, C & S no 1998
Agrotis placida, Moore, Lep Ath p 117, pl iv, fig 19, C & S no 1995
Hadena siderifeia, Moore, P Z S 1881, p 357, C & S no 1942
Mamestra terranea, Butl Ill Het vii, p 53, pl 127, fig 10

Differs from *indistans* in having no ferruginous suffusion on the underside of the male

In the form confundens = quadrisigna there are no white specks on the leniform, but usually a brick-red speck, siderifera, teranea, and niverplaga are darker red-brown, the first with white specks on the outer edge of reniform, the second with a white spot on it also, the third with the white spot only

Hab NW Himalayas, Sikhim, Nilgiris Exp 36-52 millim

1714 Euplexia adjuncta, Moore, P Z S 1881, p 357, C & S no 1931

Q Differs from nuceplaga in being greyer. Fore wing with a waved black streak from the base below median nervure, the antemedial line more obliquely waved, the postmedial more excurved, a black streak between them through the claviform, the orbicular and reniform with grey and black outlines, the submarginal linules more dentate

Hab Dalhousie Exp 52 millim

1715 Euplexia flavistigma, Moore, P Z S 1867, p 50, C & S no 2053

Apamea obliquiorbis, Moore, Lep Ath p 109, C & S no 2058 Hadena constellata, Moore, Lep Ath p 130, pl 4, fig 21, C & S no 1934

Differs from nweplaga in the head, thorax, and abdomen being pale brown, the basal half of the fore wing very dark red-brown, the outer half pale red-brown, orbicular brick-red, reniform ochreous, without white specks, and with some brick-red suffusion between it and the postmedial line, which is incurved to lower angle of cell, the submarginal line pale and irregularly dentate Hind wing with the cilia ochreous

The form constellata has one white spot on the antemedial line of the fore wing, a white blotch on the reniform surrounded by a few specks, and a series of white specks on the postmedial line, other specimens have only the white blotch on the reniform

Hab Sikhim Erp 40-52 millim

1716 Euplexia opposita, Wll. Cat xxxii, p 667, Hmpsn Ill Het ix, pl 162, fig 12, C & S no 2078

Differs from niverplaga in being very dark red-brown or black-brown. Fore wing with the orbicular and reniform stigmata large, the latter with an ochreous or brick-red lunule on it, a series of submarginal black dashes with ochreous specks on them, a marginal series of black and ochreous specks. Hind wing whitish, suffused with fuscous brown towards outer margin.

Hab Aden, Simla, Nilgiris, Ceylon Exp 40 millim

1717. Euplexia sodalis, Lutl A M N H (5) 1, p 83, id Ill Het 11, pl 29, fig 2

Apamea basalis, Moore, P Z S 1881, p 346, C & S no 2049

Apamea denticulosa, Moore, Lep Ath p 109, pl 4, fig 13, C & S no 2052

Apamea strigidisca, Moore, P Z S 1881, p 346, pl 38, fig 9, C & S no 2062

Differs from nweiplaga in being redder, the double lines of the fore wing less distinct, the postmedial line recurved to lower angle of cell, the orbicular and remform paler, the latter without white spots on it, the claviform smaller, the submarginal line irregularly waved with dark patches beyond it below the apex and at outer angle

A variety has the basal inner area of fore wing suffused with greyish white as far as the antemedial line, the area between the postmedial and submarginal lines greyish white from the inner margin to near costa, where it is bent outwards to apex, reniform with a large white patch on it, the form basalis has the patagia and basal half of fore wing suffused with purplish black, strigidisca has black streaks at base of fore wing on median nervure, vein 1 and inner margin, and a black streak crossing the submarginal line at centre

Hab Japan, Dharmsála, Simla, Sikhim Eap 42-46 millim

1718 Euplexia lignea, Butl Ill Het vii, p 40, pl 128, fig 6

Head grey, thorax vinous, with an ochreous streak on vertex, abdomen ochreous. Fore wing ochreous suffused with chestnut, the costa greyish, double waved subbasal, antemedial, postmedial, and submarginal lines, the orbicular and reniform narrow, with deep chestnut edges and pale chestnut centres, the claviform chestnut, a series of black specks on the veins beyond the postmedial line, a blackish patch on the outer margin below the apex and at outer angle. Hind wing ochreous, slightly suffused with fuscous

Hab Dharmsála, Sultanpur Exp 46 millim

1719 Euplexia albiflexura, Will Cat xi, p 726, C & S no 2067

of Differs from niverplaga in having the subbasal, ante- and postmedial lines less waved and paler—the orbicular and reinform stigmata narrower, the former oblique, the latter with white specks beyond it on the discocellulars, the claviform indistinct and narrow, the submarginal line whitish, dentate below the costa and with three prominent black streaks on it at centre

Hab "India" Evp 38 millim

1720 Euplexia didyma, Esp Schmett Eur 11 pt 1v, p 378, pl 126 (Noct 47), fig 7
Noctua lancea, Esp t c pl 174, fig 3
Noctua metitana, Lsp t c pl 126, fig 6 (nec Linn)

Noctua leucostigma, Esp t c pl 159, fig 7 Apamea moderata, Ev Bull Soc Nat Mosc xvi, 1843, p 547. Apamea oculea, Butl (nec Linn), Ill Het vii, p 9

Differs from *indistans* in the fore wing having the inner area and that between the postmedial and submarginal lines usually paler, the orbicular and reniform smaller, the latter often spotted with white, a dark postmedial series of specks on the nervules, a waved instead of lunulate submarginal line

Hab Europe, Dharmsála Evp 32 millim

Perigea centralis, Wik Cat xi, p 296
Perigea centralis, Wik Cat xi, p 734, Moore, Lep Ceyl iii, pl 147, figs 2, 2a (larva), C & S no 2099
Perigea illecta, Wik Cat xxxii, p 684
Perigea inexacta, Wik Cat xxxii, p 682
Perigea galaxia, Butl P Z S 1883, p 159, C & S no 2100
Perigea canorufa, Wik Cat xxxii, p 683
Celæna seiva, Wik Cat xxxii, p 683
Celæna seiva, Wik Cat xxxii, p 735
Hadena leonina, Wik Cat xxxii, p 735
Hadena pauperata, Wik Cat xxxii, p 735
Hadena funesta, Wik Cat xxxii, p 740
Hadena spargens, Wik Cat xxxii, p 740
Hadena taprobanæ, Feld Reis Nov pl 110, fig 3
Perigea apameoides, C & S no 2098 (nec Guen)
Mamestra dolorosa, Wik Cat xxxii, p 667, C & S no 2074

Fuscous brown Fore wing with the subbasal, ante-, post-medial, and submarginal lines indistinct, the orbicular and reniform indistinct, the latter edged with white specks, some white specks on costa towards apex, and a series on outer margin Hind wing slightly paler at base, the cilia pale Underside with an obscure postmedial line

The form dolorosa is smoky black, with the thoracic tufts sometimes brown, the lines of fore wing reduced to specks, the white spots on reinform more developed. Hind wing whitish, with

broad fuscous margin

Larva smooth, pale green, with the anal somite conical, dorsal and lateral series of purple-brown blotches speckled with white, a sublateral series of white dots Food-plant, Acanthads

Pupa greenish with reddish somital bands

Hab Throughout India, Ceylon, and Burma, Andamans, Fig. Exp 36-38 millim

1722 Euplexia albomaculata, Moore, P Z S 1867, p 52, C & S. no 2083
Prospalta stellata, Moore, Lep Atk p 111, C & S no 2085

Differs from conducta in being cupreous brown, the tuft on metathorax white Fore wing with the subbasal and antemedial lines whitish, the remform, the specks on costs the marginal and

cilial specks pure white Hind wing cupreous fuscous, the cilia whitish

In the form stellata the tuft behind the collar is tinged with white, fore wing with clusters of white spots at base, round the orbicular, which is white, and round the reniform, series of white ante- and postmedial, submarginal, marginal, and cilial specks, some white on inner margin near base

Hab Sikhim Evp 33-42 millim

1723 Euplexia leucospila, W7L Cat xiii, p 1114, C & S no 2084

d Differs from the form stellata of albomaculata in the palpi having the 2nd and 3rd joints white-tipped, the orbicular without white specks round it, the remform circular, with six specks round it, the postmedial series more curved. Hind wing with a cilial series of white specks.

The Tenasserim specimen is very much smaller than the typical

Hab Sikhim, Tenasserim Exp 26-42 millim

- 1724 Euplexia albirena, Moore, P Z S 1867, p 53, C & S no 2068
- d Differs from conducta in being rust-red. Fore wing more produced and acute at apex, the remform with some white on its outer edge and a prominent white spot on its lower extremity. Hind wing dark brown, underside with cell-spot and postmedial line.

Hab Sikhim, Calcutta Exp 46 millim

1725 Euplexia subcurva, Wil. Cat xi, p 592, Moore, Lep Ceyl iii, pl 145, fig 8, C & S no 2043
Hadena postica, Wil. Cat xi, p 594

Dark red-brown Fore wing narrow, the subbasal, ante- and postmedial double lines very indistinct, the last incurved at vein 4, the submarginal line indistinctly luxulate, with some dark dashes on it at centre, the orbicular, remform, and claviform indistinct Some specimens have a black patch on the lobe of inner margin, and the lower part of the double postmedial lines filled in with black. Hind wing brownish fuscous, the basal area pale, underside whitish, with prominent cell-spot and broad marginal band. Hab Ceylon Eup 34 millim

1726 Euplexia semifascia, Will Cat axaii, p 737, Hmpsn Ill Het viii, pl 143, fig 11, C & S no 1961 Euplexia cupres, Moore, P Z S 1874, p 578, C & S no 1957

Dark 1ed-brown Fore wing with the subbasal, ante- and postmedial double waved lines oblique, the two latter approaching each EUPLEXIA 213

other at inner margin and with the area between them dark, a dark patch beyond the first above inner margin, the orbicular large,



Fig 126 - Euplexia semifascia, & 1

indistinct, and fuscous, the reniform large, whitish, ill-defined, and with dark centre, an indistinct waved submarginal line, slightly angled below the costa. Abdomen and hind wing fuscous, the latter with slight pale and dark marks on vein 2

Closely allied to E lucipara, Linn, from Europe Hab NW Himalayas, Satára, Nilgiris. Eup 38 millim

1727 Euplexia metallica, Wil Cat xxxii, p 666, C & S no 2076

Differs from semifascia in being brighter red-brown, abdomen tinged with ochreous. Fore wing suffused with purple, a rufous line on inner margin, the ante- and postmedial lines turther apart at inner margin, the former more waved, the latter more curved, the submarginal line more prominent. Hind wing with the cilia white-tipped

In one specimen the palpi are whitish in front, the ante- and

postmedial lines straighter

Hab Sikhim, Bombay Exp 45 millim

1728 Euplexia discisignata, *Moore*, *P Z S* 1867, p 57, pl 6, fig 9, *C* § S no 1958
Euplexia striatovirens, *Moore*, *P Z S* 1867, p 58, *C* § S no 1962

Differs from semifascia in the base of the fore wing being yellowish green, the antemedial line yellow-green and evenly curved, the inner area between it and the postmedial line yellow-green. Hind wing with the inner area whitish, cilia of both wings rufous

In discusignata the basal and postmedial areas of the fore wing are pale, and black marks come out strongly before the orbicular and between it and the reniform, in structovirens the basal and postmedial areas are brown, the latter with an ill-defined pale band from costa before apex to vein 5, and no black marks round the stigmata

Hab Sikhim Erp 35 millim

1729. Euplexia albiplaga
Euplexia albonota, *Hinpsn Ill Het* ix, p 92, pl 161, fig 14
(præocc)

d Differs from semifascia in the head and thorax being black and pale brown, the abdomen fuscous. Fore wing with the ground-colour black, the reniform very prominent and white, the area between the postmedial and submarginal lines whitish, a series of white marginal points. Hind wing smoky black, with black and white marks on vein 2, and the cilia whitish

Hab Ceylon Exp 40 millim

1730 Euplexia chalybeata, Moore, P Z S 1867, p 64, C & S

d Dark red-brown Fore wing irrorated with purplish scales, the subbasal, antemedial, postmedial, and submarginal waved lines purplish and somewhat indistinct, the orbicular and reinform indistinct, the latter with some ochreous round its upper portion, a series of purplish marks on outer margin Hind wing reddish fuscous, with some indistinct marginal purplish marks. Underside with a broad marginal purplish band

Hab Sikhim Erp 62 millim

1731 Euplexia stoliczkæ, Feld Reis Nov pl 109, fig 32, C & S no 2080

Head and thorax brown, suffused with olive-green, abdomen fuscous. Fore wing violaceous grey-brown, suffused with olive-green, the subbasal, anter and postmedial double waved lines indistinct, the stigmata large and indistinct, the submarginal waved line indistinct, three pale specks on costa towards apex, a marginal series of lunules. Hind wing dark fuscous, the bases of cilia ochreous, underside with cell-spot and irregularly waved postmedial line.

Hab Dalhousie, Thandiáni, Punjab Eip 52 millim

1732 Euplexia melanospila, Koll Hugel's Kaschmir, iv, p 480
Eurois auriplena, Wik Cat xi, p 557, Moore, Lep Ceyl iii,
pl 148, fig 2, C & S no 1925
Trachea atriplicis, Koll (nec Linn) Hugel's Kaschmir, iv, p 479

Head and thorax olive-green and dark red-brown, antennorufous in male. Fore wing dark green, suffused with dark brown, and with purplish grey on the double lines and before the submarginal line, some specimens with golden-green marks near base, round the stigmata, and on submarginal line, subbasal, ante- and postmedial waved black lines, the two latter approaching each other towards inner margin, orbicular and remiforin green, with more or less pronounced dark centres, claviform replaced by a quadrate white mark of varying size and shape, and often extending up into the cell, the submarginal line indistinct, irregularly waved, and black, becoming white near inner margin. Hind wing with the basal half white or suffused with fuscous, the outer half fuscous black.

Hab Throughout India and Ceylon Erp 58 millim

EUPLEXIA 215

1733 Euplexia aurigera, Wlk. Cat xv, p 1721, C & S no 1946 Hadena megastigma, Wlk. Cat xxxii, p 738, C & S no 1947 Berrhœa olivacea, Moore, P Z S 1881, p 357, C & S no 1948

Differs from melanospila in the thoracic crests being red-brown, the orbicular and remitorm being joined by a bar on median neivure and with a smaller white spot below them, the postmedial band red-brown

Hab Sikhim Exp 42-50 millim

1734 Euplexia albinota, Moore, P Z S 1867, p 58, C & S no 1945

Differs from aurigera in having no red-brown tints. Fore wing with blue-grey scales on the transverse lines, the submarginal line much more regular, the marginal black spots absent

Hab Sikhim Eap 34 millim

1735 Euplexia auroviridis, Moore, P Z S 1867, p 59, pl 6, fig 11, C & S no 1949

Diantheecia nivescens, Butl Ill Het vii, p 58, pl 128, fig 2

Hadena albidisca, Moore, P Z S 1867, p 59, pl 6, fig 17, C & S no 1932

Head and thorax chestnut, with a greenish tinge, palpi black at sides, abdomen fuscous, the dorsal tutts chestnut. Fore wing sup-green, suffused with black, especially on basal inner area and medial and marginal areas, the subbasal, ante- and postmedial, and submarginal black lines edged with white, lumilate and dentate, a marginal series of white and black linules, the orbicular, remiform, and claviform defined by small white lumiles on their edges, in the form albidisca=mivescens a large pure white patch occupies the remiform and extends to the claviform. Hind wing fuscous, with traces of a cell-spot and postmedial line, which are prominent on underside

A form from the Nagas has the green mostly replaced by golden yellow. For wing with the area between the subbasal and antemedial lines whitish, the patch of white on disk very large and

defined below by black, more white on outer margin

Hab Dharmsála, Bengal, Nágas, Nilgiris Exp 32-34 millim

1736 Euplexia literata, Moore, Lep Ath p 124, C & S no 1952

o Differs from auroviridis in the orbicular and reinform stigmata being quadrate, and forming, with a band in the internomedian interspace, a prominent Y-shaped green mark, the double lines filled in with green, the postmedial line straighter, more erect, and less lumulate

Hab Sikhim Eap 32 millim

1737 Euplexia calamistrata, Moore, Lep Ath p 124, pl 4, hg 23, C & S no 1950

d Head and thorax white, with a few brown and black scales, abdomen pale fuscous brown, dorsal tufts tipped with black Fore wing pale olive, traces of a double subbasal line, with black patches beyond it below median nervure, the antemedial line white and diffused, the orbicular, remiform, and claviform white with black outline, the postmedial line indistinct, excurved beyond cell, and white towards inner margin, an indistinct white submarginal line with black suffusion on it. Hind wing pale fuscous, underside with cell-spot and postmedial line, a marginal pale band to both wings

Hab Sikhim Exp 36 millim

1738 Euplexia aurantiaca, n sp

Differs from auroviridis in the head, thorax, and fore wing being golden-brown instead of green, the last with the silverywhite lines more prominent, two antemedial lines, the first dentate, the second waved, the postmedial line more crenulate, the suffused areas deeper golden-brown instead of black

Hab Sikhim 8000 feet (Moller) Exp 34 millim Type in

coll' Elwes

1739 Euplexia stellifera, Moore, Lep Ath p 123, C & S no 1954

d Head, thorax, and fore wing brownish ochreous, which has probably been olive-green in the fresh state, irrorated with black scales, abdomen fuscous brown. Fore wing with the subbasal, antemedial, postmedial, and submarginal lines single and consisting of disconnected white strigæ, a white line on the discocellulars, ill-defined antemedial, medial, postmedial, and submarginal broken and diffused black bands, a marginal series of black linules. Hind wing dark fuscous, underside fuscous, with indistinct postmedial line to both wings

Hab Sikhim Evp 44 millim

1740 Euplexia lagenifera, Moore, Lep Atk p 114, C & S no 2094

d Head, thorax, and abdomen bright chestnut, collar with grey lines, and tegulæ grey fringed with chestnut. Fore wing pale pinkish chestnut, a double subbasal line, a slightly sinuous antemedial double line filled in with ochreous, a similar postmedial line dentate below the costa, excurved round end of cell and approaching the antemedial line towards inner margin, the area between the two lines bright chestnut, the orbicular a diffused pinkish patch joined to the costa and to the lower part of reniform, which has a dark centre, a submarginal dentate indistinct line

with a black spot on it below the costa. Hind wing fuscous, the costa and outer margin reddish. Underside reddish ochreous, with black cell-spot and postmedial line to each wing

EUPLEXIA

Hab Sikhim Erp 36 millim

1741 Euplexia plumbeola, n sp

d Head and thorax slaty blue-grey, abdomen fuscous Fore wing blue-grey, the area between the subbasal and antemedial lines ochreous, reniform white and ochreous, the postmedial line treble and excurved beyond the cell, an irregular submarginal yellow-brown line or band. Hind wing pale fuscous or whitish, with the outer area grey, some dark suffusion on vein 2, and a white submarginal waved line from vein 4 to anal angle. Underside of fore wing with a black lumile at end of cell on a black-speckled white patch, hind wing white and black-speckled, with a black cell-spot and waved postmedial line.

Hab Sikhim (Moller) Erp 44 millim Type in coll Elwes

1742 Euplexia gemmifera, Will. Cat vii, p 934, C & S no 1963 Karana similis, Moore, P Z S 1888, p 407, Butl Ill Het vii, pl 128, tig 8 Karana decorata, Moore, Lep Ath p 107, C & S no 1772

Head and thorax clothed with black and white scales, collar and tegulæ with some metallic blue-green scales, abdomen dark brown. Fore wing black, with streaks of blue-green scales on costa, median nervire, interno-median interspace, and inner margin, the subbasal and antemedial double lines filled in with white, the latter sending a tooth towards base in interno-median interspace, the orbicular small and pure white, remiform quadrate, white with two black spots on it, and with white marks on the costa above it, claviform a white lumile, a submarginal series of black spots edged by metallic blue-green lumiles, with some ferruginous beyond them. Hind wing white, the costal and outer areas suffused with fuscous, a faint postmedial line.

The form simils has the markings of the fore wing silvery white instead of creamy and the claviform small, decorata has the whole hind wing black except the white points and a patch towards anal angle, on the cilia

Hab Dharmsala, Sikhim, Poona, Nilgiris Exp 40 millim

1743 Euplexia albovittata, Moore, P Z S 1867, p 57, pl 6, fig 16, C & S no 1956

Euplexia sinuata, Moore, Lep Ath p 125, pl 4, fig 25, C & S

20 1960

Head and thorax black, tips of palpi and basal tufts of antennæ white he tuft on metathorax white, with rufous edges, abdomen black, a nitish at base. Fore wing with the basal area black-

NOCTUIDÆ

brown, its edge oblique and toothed near inner margin, a broad irregular white band, narrow at costa, a broad medial dark band, with the costal half blue-black, the oibicular and reniform being slightly indicated by white lines, its inner half red-brown and its inner and outer edges angled in interno-median interspace, the outer area white, irrorated with fuscous, with traces of a rufous postmedial band from costa to vein 5, a broad marginal blue-black band from costa to vein 2, its lower part with traces of dentate pale marks. Hind wing fuscous, the basal and inner areas whitish, some white and black marks on vein 2 towards outer margin. Underside of fore wing with a prominent white cell-spot.

The Japanese form has more reddish suffusion on fore wing, and sinuata from Sikhim has the white markings very much

reduced.

Hab Japan, Sikhim Eap 44 millim

1744 Euplexia distorta, Moore, P Z S 1881, p 354, pl 38, tig 18, C & S no 1959

Head black, the extremity of palpi and basal joint of antennæ white, collai black, broadly fringed with white, thorax black, with broad white stripes on vertex and patagia, abdomen fuscous black, whitish at base, legs black and white. Fore wing white, with broad irregular basal and subbasal black bands, conjoined at inner margin, a large triangular black patch on centre of costa, a very irregular black band from the lower angle of cell to inner margin, a spot beyond the cell, a triangular patch on the costa before apex, an irregular submarginal band, not reaching the costa of inner margin, with its outer edge dentate. Hind wing white, with an apical black patch continued towards anal angle as a series of conjoined spots.

Hab Siklum Erp 36 millim

B Hind wing yellow

a Palps with the 3rd joint reaching verter of head

1745 Euplexia inepta, Butl Ill Het vii, p 55, pl 127, figs 6, 7

Dark brown, abdomen ochreous at extremity Fore wing with the subbasal and antemedial double waved lines indistinct, the orbicular indistinct, with black outline, the reniform ochieous-prown, the claviform and postmedial and submarginal lines indistinct, the second excurved beyond the cell. Hind wing pale yellow, the basal area and area below median nervure suffused with fuscous, an indistinct postmedial line, a broad fuscous marginal band.

Some specimens have the thorax and outer area of fore wing

pale, the reniform white

Hab, Dharmsála Erp 46 millim

1746 Euplexia diminuta, Butl Ill Het vii, p 55, pl 127, figs 8, 9

Differs from *inepta* in the hind wing having the discocellulars dark and no postmedial line

Hab Dharmsala Eap 34-38 millim

1747 Euplexia indica, Moore, P Z S 1881, p 344, C & S no 2048

Differs from *inepta* in the fore wing having the outer half not paler, the postmedial line not lumulate, the submarginal line straighter. Hind wing with the basal area not suffused, the marginal band not broader at apex.

Hab Mussooree Eap 45 millim

1748 Euplexia confecta, Wil. Cat xv, p 1705, C & S no 2028 Agrotis hyblæa, Feld Reis Nov pl 108, ng 43, C & S no 1989 Eliochræa curtipalpis, Butl Ill Het vii, p 74, pl 131, ngs 7, 8

Head and thorax dark olive-brown, abdomen black-brown, the segments ringed with yellow. Fore wing olive-brown, the sub-basal, ante- and postmedial double waved lines, and single submarginal line indistinct, the orbicular almost obsolete, the reniform with the lower part outlined with black and often filled in with white, some black marks on the submarginal line between the costa and vein 3. Hind wing orange-yellow, a large blackish patch on basal area and below median nervure, a broad, very irregular, black marginal band expanding at apex, cilia yellow except at middle.

Hab NW Himalayas Eip 42-52 millim

- b Palp with the 3rd joint long and reaching far above vertex of head
- 1749 Euplexia pulcherrima, *Moore*, *P Z S* 1867, p 54, pl 6, fig 3, *C & S* no 2030
 Epilecta opulenta, *Butl P Z S* 1883, p 160, *C & S* no 2029

Differs from confecta in having yellowish-green or green suffusion on the thorax and on the transverse lines of fore wing and reniform, the median inner area often suffused with black, one specimen has the orbicular, reniform, and postmedial area grey, with no green suffusion

Hab N W Himalayas, Sikhim, Nilgiris Exp 52 millim

SECT III Antennæ fasciculated in male A Fore wing with the apex not produced

1750 Euplexia atrovirens, Moore, P Z S 1867, p 58, C & S no 1933 Head and thorax green and brown; palpi dark at sides, abdomen fuscous brown. Fore wing green suffused with brown, especially on medial area and near base of inner margin, the subbasal, ante-and postmedial double waved lines fairly prominent, the orbicular and reniform green and subquadrate, claviform black, a waved black line from reniform to inner margin, the submarginal line pale, with a chestnut band before it and some dark marks on it below apex, a lunulate marginal black line, clis black at emarginations. Hind wing brownish fuscous, with indistinct postmedial and submarginal pale bands

Hab Sikhim, Khásis Exp 40 millim

- 1751 Euplexia pardaria, Moore, Lep Atk p 114, pl 4, fig 12, C & S no 2096
 Luperina olivascens, Moore, Lep Atk p 114, C & S no 2095
- Q Differs from atrovers in being more ochreous (probably from fading), the orbicular and reniform more rounded, the post-medial line more irregularly lumilate, no rufous before the submarginal line, which is broader and more lumilate. Hind wing dark brown without markings. Underside pinkish, both wings with a large dark lumile at end of cell, hind wing with a post-medial line.

Hab Sikhim. Exp 38 millim

- 1752 Euplexia venosa, Moore, Lep Ath p 124. C & S no 1955
- d Head and thorax olive-green, with a few rufous and black scales, abdomen fuscous. Fore wing olive-green suffused with rufous, the subbasal, ante- and postmedial waved lines with patches of deep black on their edges, the orbicular and remform quadrate and joined to a band below the cell, so as to form an indistinct Y-shaped mark with a black V in its arms, a black submarginal mark below the apex, some pale costal specks towards apex, the veins greyish. Hind wing dark fuscous, the clia whitish, underside suffused with grey, a black streak from the base in the cell, a cell-spot and postmedial line

Hab Sikhim Exp 30 millim

- *1753. Euplexia? confluens, Moone, P Z S 1881, p 354, pl 38, fig 20, C & S no 1951
- d Dark purplish brown Fore wing with ochreous black-edged sinuous subbasal and antemedial lines, the orbicular and remiform ochreous with brown centres and nearly conjoined on median nervure, claviform black, bases of veins 2 and 3 pale, a waved postmedial ochreous black-edged line, a pale brown-edged submarginal line Hind wing fuscous, palest at base, an indistinct postmedial line, cilia ochreous

Hab Sikhim Exp 36 millim

1754. Euplexia mucronata, Moore, P Z S 1881, p 345, pl 38, fig 8, C & S no 2056

3 Pale ochreous brown, thorax and fore wing slightly tinged with reddish. Fore wing with the subbasal and antemedial waved black lines fairly prominent, the latter excurved, the orbicular and reniform pale and prominent, claviform a slight black lunule, the postmedial double line minutely waved, oblique, and approaching the antemedial line at inner margin, the outer margin irregularly dark, with a series of black lunules on it. Hind wing dark fuscous, underside pale, with cell-spot and waved postmedial line.

Hab Sikhim Exp 32 millim

1755 Euplexia heterocampoides, n sp

Head and thorax white and black, palpi and underside black, abdomen pale or dark fuscous. Fore wing white suffused with olive-green, the transverse lines white with black edges, some black suffusion beyond the subbasal line, the antemedial line angled and curved and with the inner black edge obsolete, the postmedial line prominent and approaching the antemedial line at inner margin, the area between them being suffused with black and brown, the orbicular and remiform ill-defined, with dark centres and broad clive borders, the submarginal line obsolescent, white, with three prominent dark dentitions below middle, cilia black, with white points. Hind wing pale fuscous, with an indistinct white lumilate submarginal band. Underside with a broad marginal whitish band to fore wing

Hab Kulu, Sikhim Exp 42 millim Type in B M

B (Chutapha) Fore wing slightly more produced at apex

1756 Euplexia costalis, Moore, Lep Ath p 131, C & S no 1973

d Head, thorax, and fore wing reddish ochreous, which has probably been olive-green in the fresh state, abdomen pale fuscous, with the dorsal tufts reddish. Fore wing with a pale fascia below the costa, a double subbasal waved black line, an antemedial straight erect line, orbicular and remiform pale and conjoined to a pale patch below median nervure, with black lower edge, the postmedial double line indistinct and nearly straight, a submarginal irregularly waved pale line with diffused dark inner edge. Hind wing pale fuscous, a marginal whitish band with dentate inner edge.

Hab Sikhim Exp 42 millim

SECT IV Antennæ bipectinated in male, with very short branches

1757. Euplexia icamba, Swinh A M N H (6) xii, p 260

d Head and thorax black-brown with a reddish tinge, abdomen dark tuscous, reddish towards extremity. Fore wing golden green suffused with black except before antemedial line and on marginal area, a subbasal waved black line, an oblique antemedial dentate line with a strong tooth near inner margin, where it almost joins the lunulate postmedial line, orbicular and reniform dark and ill-defined, the submarginal line prominent and lunulate, cilia black at emaiginations. Hind wing pale fuscous, with indistinct diffused dark postmedial and submarginal lines, cilia black with white points

Hab Sikhim, Khasis. Exp 46 millim Type in B M

1758 Euplexia cyanelinea, n sp

d Differs from icamba in the head, thorax, and abdomen being pale red-brown. Fore wing with the green area less suffused, the ante- and postmedial lines metallic blue-grey. Hind wing dark fuscous, cilis of both wings tipped with white

Hab Sikhim, 10,000 feet (Elwes) Exp 45 millim Type in

coll Elwes

SECT V (Chandata) Antennæ bipectinated in male, the branches long

1759 Euplexia pectinata, Warr P Z S 1888, p 308, Hmpsn III

Het viii, pl 143, fig 4

Euplexia fasciata, Hmpsn Ill Het viii, p 77, pl 145, fig 20

Differs from albovittata (p 217) in the palpi and metathoracic tuft being but slightly white, the abdomen dark at base, fore wing with a black spot detached from the basal area, the medial dark band hardly angled at outer edge, the postmedial band replaced by a rufous spot beyond the cell, the dentitions on the lower part of the marginal band prominent. Hind wing and underside black, the former with the marks on vein 2, the latter with a white cell-spot to each wing

In the form fasciata from the Nilgiris there is a prominent dark postmedial band from the costs to vein 5 instead of the

rufous spot

Hab Dharmsála, Nilgiris Exp, ♂ 40, ♀ 42 millim

- 1760 Euplexia partita, Moore, Lep Atk p 114, pl 4, fig 16, C & S no 2093-
- 3. Head white, black below, collar white, fringed with black, thorax black, the patagia with white patches, abdomen fuscous black. Fore wing bluish white, two interrupted waved black

subbasal lines, an interrupted antemedial line, expanding into a spot below the median nervure, a triangular black medial patch on the costa, centred with blue-giey, and extending downwards between the faint orbicular and reniform stigmata, the postmedial line interrupted and excurved round a black spot beyond the reniform, the submarginal line almost obsolete, except towards costa and inner margin, with some fuscous patches between it and the postmedial line and a black spot beyond it near outer angle, a marginal black line, cilia intersected with black. Hind wing dark fuscous, the cilia white in places

Hab Sikhim, 10,000 feet Exp 24 millim

1761 Euplexia lageniformis, n sp

o Differs from lagenifera (p 216) in having the collar and patagia brown and the antennæ with long branches

Hab Sikhim (Atkinson) Eap 36 millim Type in coll Elwes

1762 Euplexia heterocampa, Moore, Lep Ath p 115, pl 4, fig 15, C & S no 2097

Exactly similar to heterocampoides (p 221), but with long branches to the antennæ

Hab Sikhim Exp 42 millim

Genus ANCARA

Ancara, Wik Cat xv, p 1714 (1858) Data, Wik Journ Linn Soc vi, p 191 (1862) Sydiva, Moore, Lep Ath p 95 (1882)

Type, A replicans, Wlk, from Borneo Range Himalayas, S India, Ceylon, Khásis, Andamans, Borneo

Differs from Euplevia in the second joint of palpi reaching vertex of head, the third joint long

- SECT I (Ancara) Antennæ bipectinated in both sexes, the branches long in male, palpi with the 3rd joint obliquely porrect, eyes without lashes
- 1763 Ancara obliterans, Wil. Cat xv, p 1715, Hmpsn Ill Het vin, pl 143, fig 19
 Ancara punctiplaga, Wil. Journ Linn Soc vi, p 191

Red-brown, abdomen fuscous, with the dorsal tufts red-brown Fore wing with the subbasal, antemedial, postmedial, and submarginal lines very indistinct, the last with some dark streaks and patches on it near middle, the stigmata indistinct, a lunulate marginal line Hind wing reddish fuscous

In the form punctiplaga there is a large othereous patch beyond the cell of the fore wing

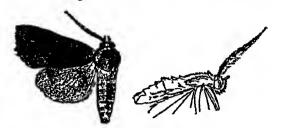


Fig 127 -Ancara obliterans, &

Hab Nilgiris, Ceylon, Borneo Exp 53 millim

*1764. Ancara fleucostigma, Moore, P Z S 1867, p 51, C & S no 2055

Head, collar, and patagia chestnut, thorax and abdomen ochreous grey. Fore wing chestnut, the inner margin pale, subbasal, ante- and postmedial double waved lines, the last incurved to lower angle of cell, orbicular with dark outline, remform white and quadrate, a black line between the stigmata, and another outlining the claviform, which is represented by a dark patch, a submarginal dentate dark line, some dark suffusion on costa before middle and on outer margin. Hind wing fuscous, pale at base

Hab "Bengal" Erp 54 millim.

SECT II (Sydwa) Antennæ minutely serrated in male, simple in female, palpi with the 3rd joint porrect, eyes lashed

1765 Ancara nigrogrisea, Moore, Lep Ath p 96, C & S no 1649

Head and thorax black, grizzled with white, abdomen fuscous, with the dorsal tutts black, legs ringed with white. Fore wing black, thickly irrolated with white scales, and crossed by about seven dentate black lines, the stigmata indistinct, a white speck on reniform at lower angle of cell, a submarginal series of black dashes, with white specks on them, cilia streaked with white Hind wing fuscous, with traces of a postmedial line, cilia with a series of white specks, and tipped with white

Hab Sikhim. Exp 56 millim.

SECT III Antennæ chated in male, palpi with the 3rd joint upturned, eyes without lashes

1766 Ancara harfordi, n sp

Head and thorax very dark red-brown, abdomen fuscous, the

dorsal tufts darker Fore wing dark red-brown with a purplish gloss, the double waved subbasal, ante- and postmedial lines indistinct, the stigmata with slight black outlines, a white lumile on reniform, some rufous streaks before the submarginal line, which consists of a series of small lumilate marks, a marginal series of small black lumiles Hind wing pale fuscous, with traces of a medial line

ANCARA

Hab Simla (Harford) Exp 52 millim. Type in B M

1767 Ancara rubra, n sp

d Head and thorax deep vinous red, abdomen fuscous, with ochreous anal tuft. Fore wing vinous red, with indistinct double subbasal, ante- and postmedial double waved lines, the orbicular and reniform indistinct, the latter with a white lumile on its outer edge, the claviform a black lumile, an irregularly sinuous submarginal line, with three dark dashes on it at centre, three white specks on costa towards apex. Hind wing fuscous, the cilia ochreous, underside with cell-spot and postmedial line.

Hab Sikhim (Moller) Exp 44 millim Type in coll Elwes.

1768 Ancara thalpophiloides, WR. Journ Linn Soc vi, p 192
Thalpophila cuprea, Moore, P Z S 1877, p 604, pl 59, fig 10,
C & S no 2046
Thalpophila delineata, Moore, Lep Ceyl iii, p 25, pl 146, fig 5,
C & S no 2047

Head and thorax red-brown, abdomen yellow, the extremity red-brown Fore wing red-brown, the veins pale, a waved sub-basal line, the ante- and postmedial waved lines forming, with the orbicular and remiform, a broad Y-shaped band, of which the outer arm is broad, with one or two white specks on it representing the remiform, a submarginal dentate line, with some white on it towards costa, a marginal series of lunules. Hind wing lemon-yellow, with broad marginal red-brown band slightly angled at middle, and broader in the female than the male. Underside pale, suffused and irrorated with red-brown, both wings with a lunulate postmedial line, highly lunulate and curved on hind wing, which has a spot at end of cell

The Ceylon form delineata has the ground-colour rather darker Hab Ceylon, Andamans, Borneo Exp 38 millim

1769. Ancara calopistrioides, *Moore*, *P Z S* 1881, p 344, *C.* § 8 no 2045

Q Differs from thalpophiloides in the ground-colour of the fore wing being darker, the lines and veins white, the apical half of submarginal line very highly dentate

Hab Khásis Exp 40 millim

1770 Ancara glaucochlora, n sp

J. Head and collar pale reddish, thorax pale green; abdomen pale red, with large dorsal green tufts. Fore wing whitish, irrorated with fuscous, the basal and medial areas pale silvery green, two indistinct subbasal lines, the outer excurved and nearly joining the curved antemedial line at inner margin, a diffused medial oblique line, very irregular dentate postmedial and submarginal lines. Hind wing pale fuscous, yellowish at base, an indistinct cell-spot and whitish medial line. Underside dirty ochreous, with three fuscous bands on each wing, the outer one broad

Hab Sikhim (Knyvett) Exp 48 millim Type in coll Knyvett

Genus MAGUSA.

Magusa, Wlk Cat x1, p 762 (1857) Sasunaga, Moore, P Z, S 1881, p 342

Type, M strigifera, Wlk, from the Amazons Range S. America, India and Ceylon

Differs from Euplexia in the third joint of palpi reaching above vertex of head, the dorsal tufts of abdomen slight, fore wing very long and nairow, the apex rounded, the outer margin oblique

1771 Magusa tenebrosa, Moore, P Z S 1867, p 59, C & S no 2044

Dark and red-brown or black and grey. Fore wing with slight streaks in the interspaces, the transverse lines almost obsolete, the orbicular small, circular, and usually prominent, reinform almost obsolete; a dark patch on costa before apex, the apical



Fig 128 - Magusa tenebrosa, &

and basal inner areas and the outer angle often grey or red-brown Hind wing fuscous brown

Hab Simla, Sikhim, Poona, Nilgiris, Ceylon Erp. 36-42

millim

EUROIS 227

Genus EUROIS.

Eurois, *Hubn Verz* p 217 (1818) Chiripha, *Wil. Cat* ix, p 200 (1856) Checupa, *Moore*, P Z S 1867, p 60

Type, E occulta, Linn, from Europe

Range Nearctic and Palearctic regions, throughout India and

Ceylon, Assam Hills

Eyes naked and without lashes, proboscis fully developed, palpi upturned, reaching vertex of head, and smoothly scaled, thorax with a small furrowed tuft behind collar and a pair of tufts on metathorax, abdomen without tufts, the dorsal part of proximal segments clothed with coarse hair, tibiæ without spines, fore wing with the cilia crenulate

SECT I Antennæ of male fasciculate

A Fore wing short and broad

- 1772 Eurois retrahens, Wik Cat xi, p 757, Hmpsn Ill Het ix, pl 162, fig 6, C & S no 2145
- Q. Head and thorax dark red-brown, abdomen fuscous Fore wing dark red-brown, subbasal and antemedial oblique, slightly waved double lines filled in with white, the orbicular and reniform with whitish outline and dark centre, a postmedial double line filled in with white, acutely angled beyond the cell, and slightly waved from the angle to inner margin, where it nearly meets the antemedial line, a pale streak on inner margin, an irregularly waved obsolescent submarginal pale line, a marginal lumulate black line. Hind wing dark fuscous, the bases of cilia ochreous, underside with a cell-spot and postmedial line.

Hab Sikhim, Ceylon Exp 40 millim

1773 Eurois luteifrons, Will Cat xi, p 751, C & S no 1953

Differs from retrahens in the head being ochreous, the abdomen tinged with ochreous. Fore wing with the postmedial line curved instead of angled beyond the cell, and with ochreous and chestnut beyond it, the submarginal line reduced to a series of pale specks, on dark lunules. Hind wing with the basal area tinged with ochreous, traces of a postmedial line.

Hab Kashmir, Khasis Exp 88 millim

1774 Eurois decorata, Moore, Lep Ath p 111, pl 4, fig 8, C & S no 2073

Head and thorax dark red-brown, irrorated with grey, abdomen reddish ochreous Fore wing dark red-brown, irrorated with grey, the subbasal and antemedial double waved dark lines oblique, the orbicular and remform conjoined on median nervure, and with

slight ochreous outlines, the latter with a red lunde on it, the area surrounding them in and beyond the cell darker, the submarginal line dentate, a series of marginal lundes. Hind wing ochreous fuscous, underside with an indistinct cell-spot and post-medial line

Hab Sikhim Eap 42 millim

1775 Eurois separata, Moore, Lep Ath p 107, C & S no 2146

d Differs from luteifrons in the fore wing being fuscous, the antemedial line with three angles in it and more erect, the onbicular and remform larger and better defined, a submarginal irregularly sinuous line without rufous on its inner edge. Hind wing with a greyish marginal band, underside with indistinct postmedial and submarginal lines to each wing

Hab Sikhim Exp 40 millim

1776 Eurois simulata, Moore, P Z S 1881, p 843, pl 38, fig 1, C & S no 2148

Differs from separata in the markings of the fore wing being reddish instead of whitish. Hind wing with a dark line through the cilia. Underside with the pale marginal band to both wings more prominent

Hab. Sikhim Exp 46 millim.

1777 Eurois albicostata, n sp.

Head and collar whitish, thorax and abdomen fuscous Fore wing reddish brown, suffused with purplish fuscous, with a broad costal whitish fascia, on which are some black specks towards apex, the orbicular oblique, whitish, joined to the fuscous reniform and continued as an oblique streak to vem 1, a V-shaped black mark between the orbicular and reniform, beyond the reniform is a pale reddish shade merging into the whitish costal fascia, faint traces of the usual double waved lines, a marginal series of black and white specks Hind wing pale fuscous, underside with cell-spot and crenulate postmedial line

One female has the whole thorax whitish, the costal fascia purplish grey, without black specks towards apex, the remiorm

indistinct

Hab Simla (Harford) Exp 28 millim Type in B M

1778 Eurois lubrica, Butl Ill Het vii p 60, pl 128, fig 9

Head and thorax black, irrorated with grey scales, abdomen pale fuscous. Fore wing fuscous black, irrorated with grey scales, a pale basal patch on costal area, the subbasal and antemedial double-waved black lines indistinct, the orbicular and reniform very large and grey, with a large quadrate whitish patch below them, having a black streak on its lower edge, the postmedial line indistinct, slightly lumilate and curved, the submarginal

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irregularly-waved line whitish, cilia with the bases white, the tips dark

Hab Dharmsála. Exp 46 millim

1779 Eurois griseimarginata, n sp

2 Fuscous black Fore wing with the double subbasal, anteand postmedial and single waved submarginal line indistinct, the orbicular and reniform indistinct, a marginal series of pale specks Underside with a postmedial line, a grey marginal band to both wings, broad on fore wing

Hab Dalhousie (Harford) Eap 46 millim Type in B M

1780. Eurois leucosticta, Moore, Lep Ath p 129, pl 4, fig 22, C & S. no 1976

d Head and thorax dark olive, variegated with white, abdomen fuscous, the terminal half tinged with pink. Fore wing olive, much variegated with white, especially between the waved black sub-basal and antemedial oblique lines and between the obliquely lunulate postmedial and ill-defined irregular submarginal line, the orbicular and remiform white, with olive centres, a large white patch on median nervure below the orbicular, a marginal series of black specks. Hind wing fuscous, the underside tinged with pink, and with conspicuous cell-spot and postmedial line.

Hab Sikhim, 10,000 feet Exp 32 millim

1781 Eurois flavipicta, n sp

d Head and thorax clothed with brown, red-brown, and yellow hair, abdomen tuscous. Fore wing grey-brown, suffused in parts with pale chestnut, some yellow patches on the basal area, a black streak from the base above vein 1, the ante- and postmedial lines yellow, rather close together below the cell, and the area between them blackish, with the large orange-centred yellow orbicular on it, the remform barely traceable, the submarginal sinuous line yellow. Hind wing dark fuscous, underside with cell-spot and postmedial line

Hab Sikhim, 10,000 feet (Moller) Exp 32 millim Type in

coll Elwes

B (Checupa) Fore wing long and narrow

- 1782 Eurois fortissima, *Moore, P Z S* 1867, p 60, pl 6, fig 5; C & S no 1972
- d Head and thorax golden green and brown Fore wing golden green, a brown patch at base, bounded by the double-waved subbasal line, a broad brown antemedial band crossed by the double lines, filled in with green, the orbicular and reniform green with diffused dark centres, and a brown patch between them, a brown patch beyond the cell, bounded by the double

lunulate postmedial lines, which are much incurved below end of cell, a series of submarginal white points with dark lunules before them and marginal specks beyond them. Abdomen and hind wing dark brown, underside with cell-spot and irregularly waved line, both wings with a series of marginal spots.

Hab Sikhim Exp 58 millim

SECT II Antennæ of male bipecunate, the branches short

- 1783 Eurois chalybeata, Wik Cat xxxii, p 665, C & S no 2071 Mamestra suffusa, Moore, P Z S 1867, p. 52, C & S no 2081
- d Head and thorax dark red-brown with a ferruginous tinge, abdomen darker. Fore wing ferruginous red, the subbasal and antemedial double waved lines indistinct, the orbicular, reniform, and claviform with dark outline, the reniform with a fulvous or rarely white spot on its outer edge, the curved postmedial double



Fig 129 -Eurois chalybeata, &

line lunulate, the submarginal irregularly waved line with pale outer edge, a lunulate marginal dark line, three pale specks on costa towards apex. Hind wing fuscous brown, clia with an ochreous line through them, underside with cell-spot and postmedial line.

Q Duller and less ferruginous, fore wing with the apex more produced and outer margin more oblique, one specimen with the

margin ochreous

Hab Kulu, Sikhim, Khásis Exp., & 48, 9 58 millim

SECT III. Antennæ of male minutely ciliated

1784. Eurois involuta, Wil. Cat 1x, p 201, C & S no 2141

A Head, thorax, and abdomen whitish with a fuscous tinge, palpi blackish at sides. Fore wing black, with the costal area and veins whitish, three subbasal white strenks (one oblique below costa, one angled below the cell, the third curved above inner margin), two postmedial streaks (one curved beyond lower angle of cell, the other angled below vein 2), a highly dentate interrupted submarginal white line, a white marginal band. Hind wing fuscous, whitish on basal and inner areas, with a cell-spot and postmedial line.

Hab NW Himslayas. Exp 52 millim

1785 Eurois virens, Butl A M N H (5) 1, 1878, p 194, id Ill Het in, pl 45, fig 5, C & S no 1930 A Eurois magnifica, Moore, Lep Ath p 127, C & S no 1928

Head and thorax yellow-green, the second joint of palpi and tufts on thorax red-brown, abdomen slaty blue. Fore wing dark brown, the costal area suffused with green, the subbasal and antemedial double waved lines filled in with green, the orbicular and reniform with reddish outlines and dark centres, the latter with a pale lunule in centre, the postmedial double lunulate line filled in with grey, three white specks on costa towards apex, a submarginal series of black and green lunules, the black part being elongate in one lunule below the costa and two above middle, a marginal series of small black and rufous lunules, cilia red-brown Hind wing slaty blue, fuscous towards outer margin, the cilia pure white

The Sikhim form magnifica has the inner area of fore wing

reddish, the hind wing brown

Hab Japan, Dharmsála, Thandiáni, Sikhim Exp 70 millim

Genus POLIA.

Polia, Ochs Eur Schmett iv, p 73 (1816) Crymodes, Guen Ann Soc Ent Fr 1841, p 238 Nikara, Moore, Lep Ath p 126 (1882) Dimya, Moore, Lep Ath p 121 *Hyada, Moore, Lep Ath p 129

Type, P flavicincia, Schiff, from Europe
Range Nearctic and Palæarctic regions, Himalayas, Khásis
Differs from Eurois in the eyes having lashes, the palpi head,
and thorax being much more hairy, the last without tufts, cilia
of fore wing but slightly crenulate

SECT. I (Polia) Antennæ ciliated.

A Fore wing broad

1786 Polia herchatra, Swinh A M N H (6) xii, p 260

Head and thorax clothed with golden brown, black, and grey

Fig 130 Polia herchatra, & }

hair, abdomen pale, with orange anal tuft. Fore wing clothed with black, golden, and grey scales, a large yellow patch at base below median nervure, the subbasal and antemedial waved lines outlined with grey, the orbicular grey, the reniform with yellow marks on its inner and outer margins, the postmedial lunulate line outlined with grey, curved, and nearly meeting the ante-

medial line at inner margin, a series of irregularly placed sub-

marginal orange dashes, chachequered brown and orange Hind wing pule fuscous, with traces of a lumile at end of cell, a postmedial line and submarginal band, cilia orange-yellow, underside with cell-spot and irregular postmedial line

Hab Sikhim, Khásis Eap 36 millim Type in B M

1787 Polia sikkimensis, Moore, P Z S 1881, p 348, pl 38, fig 16, C & S no 2101

Differs from herchatra in being of a duller colour Fore wing with the ante- and postmedial lines obscure, the orbicular and remiform whitish, the latter large and prominent, the yellow dashes of the submarginal line smaller, cilia of both wings grey

In another form the whole of the markings of the fore wing are obscured and only just indicated, so that it is nearly uniformly

dark irrorated with yellow scales

Hab Sikhim, 10,000 feet. Eap 28-32 millim

1788 Polia canosparsa, n sp

3 Differs from herchatra in being much darker, the head but slightly tinged with yellow, thorax and abdomen without vellow. Fore wing slightly irrorated with pale yellow and grey, the markings less prominent, the submarginal line slightly outlined with grey and with no yellow spots, cilia black and grey. Hind wing darker towards outer margin, the cilia tipped with grey.

Hab Sikhim, 12,000 feet (Elives) Erp 38 millim. Type

in coll Elwes

1789 Polia transversa, Moore, Lep Ath p 125, C & S no 1970 Hecatera modesta, Moore, Lep Ath p 125, C & S no 1969

Q Head and thorax clothed with grey and black scales, abdomen fuscous Fore wing clothed with black, white, and otherous scales, indistinct double waved subbaral, antemedial, and postmedial waved lines, the orbicular and remitoim with white edges and fairly prominent, the latter conjoined at its lower side to the incurved postmedial line, a prominent white dentate submarginal line. Hind wing fuscous, underside with cell-spot and postmedial line.

The form transversa has the basal and outer areas of fore wing whitish, the medial band darker, whilst modesta is more uniform Hab Kashmir, Thandiani, Punjab Erp 38 millim

1790. Polia endroma, Swinh A M N H (6) xii, p 259

Q Head, thorax, and fore wing bright chestnut, the last with an obliquely excurved blue-grey antemedial line, the area before it irrorated with blue-grey scales, the orbicular and reinform

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indistinct, the former oblique, a postmedial blue-grey line angled at vein 5, the area beyond it irrorated with blue-grey scales, and with traces of a submarginal dentate line. Abdomen reddish. Hind wing fuscous, cilia rufous

In other specimens the collar is vellowish chestnut, fore wing with the stigmata and outer area bright ochreous, with haidly any

blue suffusion

Hab Sikhim, Khásis Ein 40 millim Type in B M

1791 Polia dentata, n sp

Differs from endroma in the basal and outer areas of fore wing being suffused with grey instead of blue, the antemedial line recurved towards inner margin, the reniform smaller and lumulate, the postmedial line more rounded and slightly dentate between veins 3 and 6, the submarginal line irregularly sinuous

Hab Sikhim, 10,000 feet (Elives) Erp 38 millim Type in

coll Elwes

1792 Polia castanea, Moore, Lep Ath p 126, pl 4, fig 24, C & S no 1974

d Head and thorax dark red-brown, powdered with white scales Fore wing chestnut, the area just above vein 2 and the median nervure as far as the postmedial line suffused with deep red-brown and powdered with bluish-white scales, the orbicular oblique and slightly defined by bluish-white scales, the postmedial line dark, angled below the costa, sending dark streaks along the veins to the cell and obsolescent towards inner margin, the outer margin irrorated with bluish-white scales. Hind wing dark fuscous, underside with cell-spot and a postmedial line

Hab Sikhim Exp 40 millim

1793 Polia microsticta, n sp

d Head, thorax, and abdomen othreous brown Fore wing othreous, the costal area suffused with pinkish brown to near the apex, the subbasal and antenedial waved and postmedial lumulate lines indistinct, the orbicular and remform small, with slight black outline and some dark suffusion between them, the marginal line oblique and arising from the outer margin below the apex, the area beyond it irrorated with brown and white, a marginal series of black specks. Hind wing dark fuscous, cilia of both wings pinkish brown. Underside of hind wing with cell-spot and postmedial line.

Hab Sikhim (Moller) Exp 36 millim Type in coll Elwes

1794 Polia griseirufa, n sp

d Head and thorax bright rufous, abdomen paler Fore wing bright rufous, the subbasal, ante- and postmedial waved lines

ochreous, the latter excurved beyond the cell, some grey suffusion on basal and medial areas below the cell, reniform a pure white speck, the area beyond the submarginal irregularly sinuous line silvery grey, a marginal series of black specks, cilia rufous Hind wing fuscous, with the cilia rufous Underside of both wings with cell-spot and postmedial line

Hab Sikhim, 10,000 feet (Elives) Erp 25 millim. Type in

coll. Elwes

*1795 Polia? khasiana, Moore, P Z S 1881, p 342, pl 87, fig 5, C & S no 2131

Head, thorax, and fore wing dull red-brown, the last irrorated with purplish grey, brighter brown pale-edged sinuous antemedial, postmedial, and submarginal lines, orbicular and reinform large, the median and submedian nervures dark, the outer area brighter Hind wing greyish white, with the veins and margin brown fuscous.

Hab. Khásis. Exp 40 millim

B Fore wing rather narrower.

1796 Polia junctura, n sp

J. Ochreous brown Fore wing suffused with pale reddish brown, some white scales on the veins, the antemedial line pale, oblique and recurved near inner margin, the area in and beyond the cell black, the orbicular and remitorm pale and conjoined into a U-shaped mark, the postmedial line situated nearer the margin than usual, angled at vein 5 and with some ill-defined dark marks beyond it. Hind wing, with indistinct cell-spot and postmedial line

Hab Sikhim, 7000 feet (Moller) Evp 32 millim Type in

coll Elwes.

SECT II. (Dimya) Antennæ fasciculated in male

1797 Polia sinuata, Moore, Lep Ath p 122, pl 4, fig 17, C & S no 1923

Differs from dentata in being dull red-brown suffused with fuscous, fore wing with the anti-medial line in the form of three arcs, the postmedial line dentate throughout and less oblique towards inner margin, the orbicular and reniform indistinct

The type, from which the figure was taken, is very worn

Hab Sikhim, 10,000 feet. Exp 38 millim

1798 Poha virescens, n sp

d Head, thorax, and fore wing clothed with grey, fuscous, and dull green scales, abdomen and hind wing greyish fuscous.

Fore wing with faint traces of antemedial, postmedial, and submarginal lines and oi bicular and reniform marks

Hab Kashmir (Thompson) Erp 46 millim Type in coll

Leech

SECT III (Hyada) Antennæ of male bipectinate

*1799 Polia grisea, Moore, Lep Ath p 130, pl 4, fig 26, C & S no 1978

of Ochreous grey Fore wing irrorated with brown, a straight subbasal brown line, sinuous antemedial, two medial, and one post-medial line, the last forked towards costa, orbicular and remitorm whitish, the latter indistinct, a series of broad dentate marginal marks Hind wing ochreous brown

Hab Sikhim, 15,000 feet Erp 36 millim.

Genus DIPTERYGIA

Dipterygia, Steph Brit Ent, Haust 11, p 167 (1829)

Type, D scabruscula, Linn, from Europe

Range Nearctic and Palæarctic regions, Himalayas, Nágas,

Nilgiris, Ceylon

Eyes naked and without lashes, proboscis fully formed, palpi upturned, reaching above vertex of head, the second joint with long hair below, antennæ minutely ciliated in male. Thorax with a long furrowed crest behind the collar, abdomen with dorsal tufts on proximal segments, tibiæ without spines.

1800 Dipterygia nocturna, *Hmpsn Ill Het* viii, p 78, pl 145, fig 19 Dipterygia indica, *Moore, P Z S* 1867, p 51 (præocc), C § S no 2041

Head ochreous white, variegated with brown and black scales, thorax black-brown, the crest brown, abdomen dark fuscous. Fore wing black-brown, the stigmata barely traceable, faint traces of a postmedial curved and waved line with two white subapical specks beyond it, and a large whitish fuscous-suffused patch on inner margin from it to outer angle, with a small patch on outer margin above the larger one, traces of a submarginal series of white specks. Hind wing daik fuscous, the cilia whitish

Hab Sikhim, Nilgiis Eip 38 millim

1801 Dipterygia cristifera, Hmpsn Ill Het 1x, p 94, pl 162, fig 7

Differs from nocturna in being slightly paler. Fore wing with the stigmata more prominent and pale-ringed, a pale fascia with a black dash above it on inner margin—the patch at outer angle more suffused with brown and much shorter and broader, the postmedial

line being less curved and with black lines bounding it on inner and upper edges, the submarginal series of pale specks more prominent.



Fig 131 -Dipterygia cristifera, &

Hab Ceylon Exp 40 millim

*1802 Dipterygia? sikkima, Mcore, Lep Ath p 105, C & S

Differs from nocturna in the fore wing being slightly narrower, sinuous ochreous subbasal, ante- and postmedial lines, the pale patch at outer angle less prominent, streaked with dark brown and not extending along outer margin towards apex, the orbicular and reniform spots more distinct. Hind wing paler, brownish white at base, and with indistinct postmedial line

This may be allied to Euplexia subcurva, Wik

Hab Sikhim Erp 38 millim

1803 Dipterygia indica, Will Cat xxxii, p 647, C & S no 2138

Very pale brown, collar with two black lines, patagia outlined with black. Fore wing with a waved black fascia below median nervure, the subbasal and antemedial double black lines very highly dentate, the orbicular and reniform with black outlines, the former very oblique, the double waved postmedial line obliquely curved, a diffused fuscous oblique fascia from outer margin below apex to the postmedial line with some black dashes on it, a similar but not oblique fascia above outer angle. Hind wing whitish, with a broad marginal fuscous band. Underside of both wings with a postmedial series of specks.

Hab NW Himalayas Eap 48 millim

1804 Dipterygia umbrifera, Butl Ill Het vii, p 46, pl 126, fig 1

Head, thorax, and abdomen pale, suffused with red-brown Fore wing grey-brown, the basal area and inner area as far as the postmedial line suffused with dark red-brown, the subbasal and antemedial double waved lines indistinct, the orbicular and reniform large, pale-ringed, and indistinct, the postmedial line very

much excurved beyond cell, angled and bent inwards between veins 2 and 3, where it encloses a grey patch at outer angle, a dark streak from it to outer margin above vein 3. Hind wing fuscous underside with cell-spot and waved postmedial line

Hab Dharmsála Evp 36 millin

1805 Dipterygia grata, Butl Trans Ent Soc 1881, p 172

Head and thorax pale brown, palpi pinkish at sides, white in front, collar whitish, the tuft on thorax vinous Fore wing pale brown, the costal and inner areas suffused with pink, the orbicular and reniform pinkish white with pale brown centres, the latter figure-of-8-shaped, an indistinct crenulate postmedial line, some red-brown streaks on inner margin and at apex, outer margin red-brown with a fine white line Hind wing fuscous, underside with cell-spot and indistinct postmedial line

Hab Japan, Nágas Evp 38 milim

Genus EUSCOTIA

Euscotia, Butl Ill Het vii, p 47 (1889)

Type, E inertricata, Moore

Range Japan, NW Himalayas, Nilgiris

Differs from Dipterygia in the 3rd joint of the palpi being long and porrect, the abdominal tufts larger Fore wing longer, the outer margin more oblique, the cilia of both wings highly crenulate

1806 Euscotia inextricata, Moore, P Z S 1881, p 342, C & S no 2139

of Grey-brown, head, collar, and patagra with fine black lines. Fore wing with the subbasal, antemedial, and postmedial indistinct

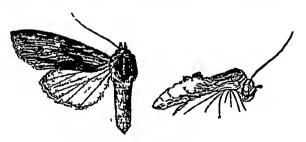


Fig 132—Euscotia inextricata, of 1

double lines extremely irregularly dentate, the orbicular and remform indistinct, with a brown streak below them and some oblique costal strige above them, some ill-defined irregular submarginal brown streaks, the streak above outer angle long and extending to

١

the postmedial line. Hind wing white, the veins of outer area and margin suffused with brown

Q with the hind wing wholly suffused with brown Hab NW Himalayas, Nilgiris Exp 57 millim

Genus CUCULIA

Cuculia, Schrank, Fauna Boica, 11, 2 p 157 (1802) Callænia, Hubn Verz p 246 (1818)

Type, C verbasci, Linn, from Europe

Range N America, Europe, S. Africa, Japan, Himalayas,

Nágas

Eyes naked and with or without lashes, proboscis fully formed, palpi obliquely porrect, with rather long hair below, frons ridged, antennæ almost simple Collar running up to a peak at centre, thorax almost without tufts, abdomen long and tapering to a point, the proximal segments of abdomen with dorsal tufts Fore wing long and narrow, the costa arched towards apex which is acute, both wings with the outer margin slightly angled in the middle and the cilia more or less crenulate

1807 Cuculia albescens, Moore, P Z S 1881 p 357, C & S no 2336 Callænia elongata, Butl A M N H (5) vi, p 67, id Ill Het

Callænia elongata, Butl A M N H (5) vi, p 67, id Ill Het vi, pl 103, fig 7, C & S no 1528
Cucullia atkinsoni, Moore, Lep Ath p 131, C & S no 2337

Head and thorax grey and brown, abdomen brown, with the dorsal tufts dark Fore wing grey, suffused with brown especially on costal and inner areas, an indistinct irregular exceedingly dentate double antemedial line and traces of a similar postmedial

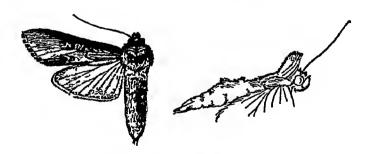


Fig 133 — Cuculia albescens, & 1

line, the orbicular and reniform indistinct, with pale outlines, a dark streak on inner margin, and another above outer angle Hind wing pale, the outer area suffused with brownish fuscous Hab NW Himalayas, Sikhim Evp 50-58 millim

CUCULIA 239

1808 Cuculia nigrifascia, n sp

3 Differs from albescens in the fore wing having the black streak from base below median nervure more prominent, the antemedial line more prominent and much less dentate, a prominent black band between the orbicular and reniform continued to near inner margin, short black streaks on outer area at middle and above outer angle Hind wing paler

Hab Murree Enp 50 millim Type in B M

1809 Cuculia albipennis, n sp

d Head and thorax white, collai with a black band, two black spots on tegulæ, abdomen pale ochreous. Fore wing white, slightly suffused with brown, a black streak from base below median nervure, an antemedial black line excurved below cell and angled inwards on vein 1, the orbicular and reniform with brown centres and incomplete black edges, a postmedial line angled outwards beyond cell, some white specks on costa towards apex, traces of a submarginal line, black streaks on outer area at middle and above outer angle, a series of black marginal specks. Hind wing whitish, fuscous towards outer margin.

Hab Sultinpur, Kangra (Graham Young) Exp 30 millim

Type in coll Leech

1810 Cuculia brevipennis, n sp

Differs from albescens in the fore wing being shorter and broader, the colour paler, the orbicular and reniform more prominent, the former more rounded, two subapical dark streaks and one near middle of outer area. Hind wing with the basal area pale ochreous instead of semihyaline white. Underside of fore wing paler fuscous, hind wing uniformly pale, irrorated with brown

The Sikhim specimen has the hind wing whiter, the Nága

specimen has the stigmata indistinct

Hab Subáthu, NW Himalayas (Harford), Sikhim, Nágas Erp 46 millim Type in BM

1811 Cuculia stigmatophora, n sp

d Pale reddish ochreous, collar with fine dark lines and a black streak from shoulder, vertex of thorax dark red-brown Fore wing with the costal area suffused with rufous, the pattern as in albescens, but red-brown in colour, the orbicular and reniform obsolete, with a red-brown mark between them Hind wing fuscous Underside pale, thickly irrotated with ochreous

Hab Murree (Harford) Erp 44 millim Type in B M

- 1812 Cuculia pullata, Moore, P Z S 1881, p 358, C & S no 1529
- 2 Differs from albescens in the hind wing being white, with a

large black lunule at the end of cell and very broad black marginal band—the cilia white

Hab Dalhousie Sikhim Eip 72 millim

Genus ACRONYCTA

Acronicta Ochs Eur Schmett iv, p 62 (1816)
Triena, Hübn Verz p 200 (1818)
Hyboma Huhn Verz p 200
Thalatha Will Journ Linn Sic v., p 187 (1862)
Plataplecta, Butl A M N H (5) i p 195 (1878)
*Tycracona Moore, Len Ath p 95 (1852)
Pseudepunda, Butl Trans Ent Soc 1890, p 672

Type, A leporina Linn from Europe

Range Nearctic Palearctic and throughout the Oriental region Eyes naked and without lashes, proboscis fully developed, antennæ simple in both seves, thorax and abdomen without tufts, the latter with long course hair on the dorsal part of proximal segments legs without spines. Fore wing with the cilia non-crenulate the inner margin slightly lobed towards base.

SECT I (Acronycta) Palpi obliquely upturned in male, upturned in female

1813 Acronycta anædina Butl Trans Ent Soc 1881 p 19 Triena maxima, Moore P Z S 1881 p 333, C § S no 1771

of Whitish grey palpi black at sides; thorax clothed with hair and scales abdomen fuscous. Fore wing with some fuscous blotches on costa, a waved black fascia in interno-median interspace from base to below the orbicular, the antemedial double lines very faint the orbicular and remform black-edged, with a black streak between them, which is sometimes obsolete the inner border of remform double, the postmedial curved double linulate line prominent filled in with white and with a black streak crossing it between veins 1 and 2 and sometimes another between veins 4 and 5 a marginal series of black spots. Hind wing fuscous white, with a postmedial line the cilia whitish. Underside of both wings with a cell-spot and curved postmedial line.

Q Darker grey, fore wing with the streak between the stigmata and also the upper postmedial streak always present, hind wing darker fuscous, underside with the cell-spot to hind wing large

Hab Japan NW. Himalayas Panjab Rangoon Erp, 6 54-60, 2 70 millim

1814 Acronycta paucinotata, n sp

Q Head and thorax grey abdomen brownish grev Fore wing grey with traces of a black subbasal line, an antenedial minutely

dentate black line, with slight claviform mark on its outer edge, a medial striga from costa, traces of a reniform mark, with black lunule on its lower edge, traces of a crenulate postmedial line, with slight black streaks beyond it, chiefly towards apex. Hind wing brownish fuscous, the cilia grey

Hab Kashmir (McArthur) Erp 50 millim Type in coll

Leech

1815 Acronycta aceris, Linn Syst Nat 1, 2, p 846

Head, thorax, and fore wing clothed with white and dark brown hair, the abdomen grey. Fore wing with indistinct subbasal, double crenulate ante- and postmedial, and indistinct single lumilate submarginal lines, the orbicular and reniform small, the latter obscured by an indistinct fuscous curved medial line, a series of marginal and cilial brown spots, a black streak from base and two streaks crossing the postmedial line, which are almost absent in the Kashmir specimen. Hind wing white, often with slight pale brown suffusion and the veins blown, a series of pale brown cilial spots

Larva pale red, with paired dorsal tufts of hair, the head streaked with black, a series of dorsal black streaks and ring-marks Hab Europe, Gurais valley, Kashmir Erp 38-46 millim

SECT II (Hyboma) Palpi upturned in both sexes

A. Palps with the 3rd joint short in both sexes

1816 Acronycta sinens, Wik Cat xi, p 746, Hmpsn Ill Het viii, pl 144, fig 6, C & S no 1918

Thalatha sinens, Wik Journ Linn Soc vi, p 187



Fig 134
Acronycta sinens, 5

3 Pure white, palpi with the 2nd joint black at base. Fore wing with a short black mark from base below median nervure, the subbasal and antemedial double waved fuscous lines indistinct, a double waved medial line arising from a fuscous patch on the costa, with a black line on its inner edge,

the orbicular and remform hardly traceable, a postmedial irregularly waved line arising from a fuscous patch on the costa and with a black patch on it at vein 2, a submarginal lumulate line, a black speck on margin above vein 2. Hind wing with some fuscous suffusion on apical area, underside with a cell-spot and irregularly waved postmedial line.

Q with the lines of fore wing brownish fuscous, the black streak from base obsolete, abdomen and hind wing brownish fuscous

Hab Nılgırıs, Moulmein, Borneo Evp, ♂ 30,♀ 36 millim,

- 1817 Acronycta conjecturalis, Swinh Trans Ent Soc 1890, p 222, pl vii, fig 10
- Q Differs from sinens in the fore wing having a broad medial diffused blackish band, the patch on postmedial line elongated into a streak, a marginal series of black streaks. Hind wing fuscous

Hab Rangoon Exp 36 millim,

1818 Acronycta prumosa, Guen Noct 1, p 53, Moore, Lep Ceyl 111, pl 144, fig 3, C & S no 1765
Polia soluta, Wlk Cat xxxiii, p 723
Acronycta consanguis, Butl A M N H (5) 1v, p 358, C & S no 774

d Head and thorax greyish white, the latter clothed with scales, abdomen whitish, with ochreous tinge at base, fuscous towards extremity. Forewing whitish grey, with subbasal and antemedial indistinct double lines, the orbicular large, round, and white, the remform with black outline, its inner margin double, the post-medial double lumilate line filled in with white and incurved at vein 2, and with fuscous suffusion beyond it, a series of small marginal lumiles calla chequered fuscous and white. Hind wing white slightly suffused with fuscous, and with traces of a post-medial line, underside with a cell-spot, a patch on costa above it, and maculate postmedial line.

2 with the hind wing fuscous brown

Hab Japan, N W Himalayss, Sylhet, Ceylon, Java Esp,

3 44, 2 46 millim

1819 Acronycta denticulata, Moore, P Z S 1888, p 408, Butl Ill Het vu, pl 125, fig 8

Dark grey, palpi with the 2nd joint black at base. Fore wing with a black fascia from base below median nervure to outer margin, interrupted at middle, the subbasal and antemedial lines indistinct, the stigmata indistinct, the postmedial line dentate and incurved at vein 2, a marginal series of specks. Hind wing pure white, the veins and margin tinged with fuscous, underside with medial short band from costa and irregularly waved postmedial line.

Hab Dharmsála Erp 42 millim

- 1820 Acronycta nigrivitta, Hmpsn Ill Het viii, p 72, pl 144, fig 19
- d Pale brown, collar banded with black Fore wing with the black fascia below medial nervure continuous and curved downwards at middle, an indistinct double antemedial black line, the orbicular and reinform large and indistinct, the postmedial double limilate line evenly curved, a submarginal diffused waved line and marginal

series of specks Hind wing ochreous white, with broad marginal fuscous band Underside with submarginal fuscous band to both wings

Hab Milgiris Eip 35 millim

1821 Acronycta bicolor, Moore, P Z S 1881, p 332, C & S

Head, thorax, and fore wing fuscous black, irrointed with grey scales, the last with double subbasal and antemedial waved black lines, the orbicular and reniform indistinct, cilia chequered black and fuscons. Hind wing pure white, the cilia slightly tinged with fuscous

Hab NW Himalayas Evp 48 millim

B Palps with the 3rd joint long and reaching above vertex of head in female

1822 Acronycta fasciata, Moore, Lep Ceyl in, p 5, pl 144, fig 4, C & S no 1778

Hyboma divisa, Moore, P Z S 1888, p 409, Butl Ill Het vii, p 45, pl 125, fig 7

Head and thorax grey, suffused with fuscous, the 2nd joint of palpi black at base, shoulders with a black stripe, abdomen fuscous. Fore wing grey suffused with fuscous, especially on basal inner area and beyond the middle, the subbasal and antemedial double waved lines indistinct, a black streak below median nervure from base to outer margin interrupted at middle, the orbicular and reniform large, the former with a whitish ring inside the black margin, the postmedial double lumulate line incurved at vein 2. Hind wing whitish fuscous in male, darker in female, underside with cell-spot and postmedial line.

Hab Kangra, Dharmsála, Ceylon, Rungoon Eup, & 36,

Q 42 millim.

*1823 Acronycta obliqua, Moore, Lep Ath p 95, Waterh Aid, 11, pl 118, C & S no 1647

Head and thorax pinkish grey, palpi and base of collar dark brown. Fore wing pinkish grey, irrolated with fuscous, a short indistinct subbasal line and indistinct waved anter and postmedial brown lines, a very irregular dark brown fascia from middle of costa to centre of outer margin, the outer area suffused with brown and with a pale irregular submarginal line. Abdomen and hind wing pale fuscous, the latter with pale marginal line.

Hab Sikhim Eap 32 millim

244 NOCTUDE

Genus CORYTHURUS

Corythurus, Hmpsn Ill Het 1x, p 112 (1893)

Type, C nocturnus, Hmpsn Range Ceylon, Tenasserim

3 Eyes naked and without lashes, palpi slender, curved, and extending backwards over vertex of head, the 3rd joint buried in very long hair from the end of the 2nd joint antennæ almost simple, thorax and abdomen smoothly scaled, the latter with immensely developed tubular anal tuft, tibiæ without spines Fore wing with the apex rounded, the cilia non-crenulate

2 with the palpi held far apart, naked, the 3rd joint up-

turned and long, abdomen with no anal tuft

1824 Corythurus nocturnus, *Hmp·n Ill Het* 1x, p 113, pl 165, figs 4, 10

d Head and thorax pale rufous brown, the collar darker, abdomen fuscous Fore wing reddish grey, with indistinct double subbasal, ante- and postmedial lines, a dark rufous and fuscous patch between thet wo former, obsolete towards inner margin, a large rufous submarginal patch also obsolete towards inner margin, and edged by a waved whitish submarginal line and crossed by a black streak from end of cell to the submarginal line, two short black streaks to near centre of outer margin. Hind wing fuscous brown

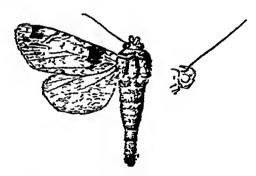


Fig 135 — Corythurus nocturnus, &

Q Much greyer, with the patches on fore wing fuscous black, the lines more distinct, some patches of olive suffusion and an indistinct remiform spot, underside of fore wing with the cilia white intersected with fuscous

The Tenasserim female is darker, the fore wing more uniformly varegiated with dark grey and olive and without the dark patches

Hab Ceylon, Tenasserim Valley Exp, 6 52, 9 42-46 millim

Genus MUDARIA.

Mudaria, Moore, Cotes' Museum Notes, 111, p 68 (1892)

Type, M connifrons, Moore

Range Bengal

Eyes naked and without lashes, proboscis fully developed, palpi poriect and smoothly scaled, the 3rd joint well developed, from with a corneous trilobate process, antennæ simple in both sexes, metathorax with slight tufts, abdomen without tufts, tibiæ clothed with long hair and without spines. Fore wing with the apex rounded, the clin slightly crenulate. Hind wing with vein 5 bent downwards at base, but weak

1825 Mudaria cornifrons, Moore, Cotes' Museum Notes, 111, p 68

Head, thorax, and abdomen clothed with rufous and grey scales Fore wing grey, slightly suffused with brick-red, traces of a



Fig 136
Mudaria cornifrons, of 1

black subbasal line, an antemedial black line, double at costa, much excurved below the cell, and dentate towards inner margin, a black arc with its open side towards the costa from the inner edge of the almost obsolete orbicular to the outer edge of the remform, a postmedial excurved lunulate line, an indistinct dentate

submarginal line Hind wing semihyaline white, with traces of fuscous on the margin

Larva destructive to silk-cotton

Hab Bengal Eap, ♂ 45, ♀ 38 millim

Genus TOXOCAMPA.

Toxocampa, Guen Ann Soc Ent Fr 1841, p 75

Type, T cracca, Schiff, from Europe

Range Nearctic and Palæarctic regions, throughout India,

Ceylon, and Burma

Eyes naked and without lashes, proboscis fully developed, palpi obliquely upturned, the 2nd joint reaching vertex of head and thickly and evenly scaled, the 3rd short, from with a short tuft, antennæ minutely ciliated in male. Thorax with a slight crest behind collar, no tufts on metathorax or abdomen, tibiæ without spines. Fore wing with the outer margin much excurved at centre, the cilia not crenulate.

1826 Toxocampa dorsigera, Wil. Cat xxxii, p. 873 Hmpsn Ill Het ix, pl 162, fig 18, C & S no 2295

Toxocampa cuculata, Moore, Lep Atk p 159, C & S no 2294

Toxocampa orientalis, Butl P Z S 1886, p 381, C & S no 2298

Toxocampa viciæ, Butl Ill Het vii, p 13 (nec Hubn)

Violaceous grey-brown, the vertex of head and collar jet-black Fore wing striated with fuscous and with the veins pale, traces of antemedial, medial, and postmedial dark lines, the last highly excurved beyond cell, an inverted P-shaped black mark at end of

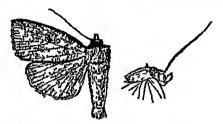


Fig 137 - Toxocampa dorsigera, &

cell, with some black specks on its outer edge, sometimes the outline only of this mark being present, a submarginal slightly curved pale-edged line, a marginal series of minute specks. Hind wing fuscous, the cilia tinged with ochreous. Underside with cell-spot, traces of a postmedial line, and broad diffused marginal band.

Small and large forms coexist in the NW Himalayas, the

former alone occurring in the Nilgiris and Ceylon

Hab N W. Himalayas, Nilgiris, Ceylon Exp 46-52 millim

Genus CONSERVULA

Conservula, Grote, Bull Buff Soc 11, p 17 (1874) Appana, Moore, P Z S 1881, p 355

Type, C anodonta, Guen., from N America
Range N America, Madagascar, Sikhim, Nilgiris, Ceylon
Eyes naked and without lashes, proboscis fully developed,
palpi upturned and reaching vertex of head, thickly scaled, the
third joint minute, antennæ simple in both sexes, metathorax
with tufts which are well developed in the American typical species,
slight in the others, abdomen without tufts, tibiæ without spines
Fore wing with the cilia not crenulate

1827 Conservula indica, Moore, P Z S 1867, p 57, C & S, no 1975

Pale reddish chestnut, collar pale-fringed, a pale line on tegulæ Fore wing with an indistinct subbasal line, a dark speck in base of cell, a broad medial deep chestnut band with pale edges, arising from the subcostal, narrowing towards inner maighl, and with a broad pale V-mark on it in and beyond the end of cell,

a submarginal slightly curved pale line, cilia dark chestnut Hind wing reddish fuscous. Underside of both wings with



Fig 138 — Conservula indica, &

indistinct dark mark on discocellulars and postmedial and submarginal lines

Hab Sikhim Exp 38 millim.

1828 Conservula V-brunneum, Guen Noct 11, p 62, C & S no 1979
Appana cingalesa, Moore, Lep Ceyl 111, p 548, pl 214, fig 6,
C & S no 1975 A

Differs from *indica* in being much greyer and less chestnut in colour, the collar and patagia without the pale lines. Fore wing with the submarginal line straight and dark. Hind wing whitish, with the cilia chestnut

Hab Nilgiris, ? Pondicherry, Ceylon Exp 38 millim

Genus PRODENIA.

Prodenia, Guen Noct 1, p 159 (1852)

Type, P littoralis, Boisd

Range Nearctic region, Mediterranean subregion and through-

out the tropical and subtropical zones

Differs from Euplema in having no tuft behind collar, but only the tufts on metathorax, the scaling much smoother, the legs less harry, abdominal tufts slight, antennæ chated in male

1829 Prodenia littoralis, Bossd Faun Ent Madag, Lép p 91, pl 13, fig 8, Moore, Lep Ceyl 111, pl 146, figs 1 a, b (larva), C & S no 2120

Prodenia ciligeia, Guen Noct 1, p 164
Prodenia testaceoides, Guen Noct 1, p 165
Prodenia glaucistriga, Wlh. Cat 1x, p 197
Prodenia subterminalis, Wlh. Cat 1x, p 196
Prodenia declinata, Wlh. Cat xi, p 723
Neuria retina, Freyer, Beitr Schmett v, p 161

Pale ochreous, much suffused with dark brown, abdomen paler Fore wing with some ochreous streaks at base, an angled and oblique subbasal line, a waved and curved antemedial line, the orbicular oblique, with fuscous centre and black edges, the remiform an oblique 'arrow-head' mark, the outer half of median nervure and bases of veins 2, 3, 4, and discocellulars prominently pale,

claviform black, an indistinct lumilate postmedial line excurved beyond cell, a waved submarginal line with black streaks before

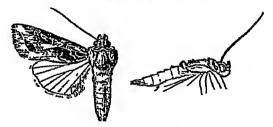


Fig 139 -Prodenia littoralis, &

it, cilia with pale streaks through them Hind wing opalescent

and semihyaline white, with dark marginal line

Larva pale violet-brown, with a subdorsal series of narrow yellow spots with black lunules above them, a lateral series of purplish-black spots centred by a white dot, a sublateral white line Food-plant Lantana

Hab Mediterranean subregion and throughout the tropical and subtropical zones of the Old World Erp 30-45 millim

1830 Prodenia minima, Swinh P Z S 1889, p 410

3 Brownish white, in orated with dark scales Fore wing with some dark marks on the indistinct subbasal line, the antemedial waved line interrupted and with the large dark claviform stigma conjoined to it, beyond which is an oblique pale fascia from the median nervure, the orbicular and reniform on a diffused dark triangular patch, the former a white speck, the latter quadrate, the postmedial and submarginal lines indistinctly lumilate, the latter obsolete from the costa to vein 5, a marginal series of dark spots Hind wing pure white

Hab Hydrabad, Sind Evp 22 millim

Genus SPODOPTERA.

Spodoptera, Guen Noct 1, p 153 (1852)

Type, S mauritia, Boisd

Range W Indies N & S America, Africa, N China and

throughout the Oriental and Australian regions

Differs from Prodenia in having immensely developed tufts of hair on the fore tibiæ, cilia slightly crenulate, antennæ almost simple

Spodoptera mauritia, Bousd Faun Ent Madag, Lép p 92
Spodoptera nubes, Guen Nort 1, p 155, C & S no 2121
Spodoptera filium, Guen Nort 1, p 155
Prodenia infecta, Wil. Cat 1x, p 196, Butl Ill Het 11, pl 109, fig 8
Prodenia insignata, Wil. Cat 1x, p 197

Caradrina triturata, Wil. Cat x, p 295
Agiotis tiansducta, Wil. Cat x, p 344
Prodenia permunda, Wil. Cat xi, p 723
Laphygma giatiosa, Wil. Cat xixii, p 651
Laphygma squalida, Wil. Cat xixii, p 652
Prodenia venustula, Wil. Cat xixii, p 654
Celæna bisignata, Wil. Cat xixii, p 659
Agiotis aliena, Wil. Cat xixii, p 694
Agiotis submarginalis, Wil. Cat xixii, p 699
Agrotis bisignata, Wil. Cat xixii, p 702
Hadena obliqua, Wil. Cat xixii, p 736

Dark grey-brown with a rusty tinge, abdomen fuscous Fore wing with the subbasal, anteinedial, and postmedial double waved lines indistinct, the orbicular small and ochreous, the reniform blackish, the submarginal line whitish and irregularly waved, a



Fig 140 - Spodoptera mauritia, & 1

whitish patch is often present between the orbicular and remiform and a dark patch on the central marginal area. Hind wing opalescent and semilyaline white, with a dark marginal line

Hab W Africa, Mauritius, Shanghai, and throughout the

Oriental and Australian regions Exp 38 millim

Genus CALOGRAMMA

Calogramma, Guen Noct 1, p 165 (1852)

Type, C festiva, Donov

Range India, Ceylon, Australia, New Caledonia

Differs from Eupleria in having no tuft behind collar, but only the tufts on metathorax, the legs less harry. Forewing with the cilia but slightly crenulate. Hind wing with vein 5 curved at origin and arising below the centre of discocellulars, which are highly angled.

1832. Calogramma festiva, Donov Epit Ins New Holl (1805),

Moore, Lep Ceyl III, pl 146, fig 6, C & S no 2137

Polia picta, Boisd Voy de VAstivlabe, Lep p 241

Ochreous white, head and thorax suffused with pinkish red Foie wing with some red on costa at base, numerous ill-defined waved black lines between base and antemedial line, the orbicular and clavifoim consisting of black lings, a medial pinkish-red band, wide at costa nailowing to inner margin, the renifoim with ochieous and black outlines and ied centre, the postmedial double

waved lines filled in with ochreous and highly excurved beyond the cell, some black dashes on reddish patches beyond it Hind wing semihyaline white

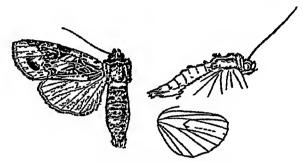


Fig 141 — Calogramma festiva, &

Hab Bengal, Ceylon, Australia, New Caledonia. Exp 48 millim.

Genus AMYNA.

Amyna, Guen Noct 1, p 406 (1852) Ilattia, Wlh Cat xvi, p 208 (1858)

Type, A selenampha, Guen.

Range Neotropical region, S Africa, throughout the Oriental

region, Japan, Pacific groups

Differs from Euplexia in having no tufts on thorax, the abdomen slender and tapering to a point, with the dorsal tufts slight, palpi more slender and reaching above vertex of head. Fore wing shorter and broader, the costa more arched towards apex

SECT I (Amyna) Fore wing of male with no vesicle in cell

1833 Amyna selenampha, Guen Noct 1, p 406, Moore, Lep Ceyl
111, pl 147, figs 3, 3 a, C & S no 2104.
Alamis spoliata, Wilk Cat xm, p 1050
Amyna subtracta, Wilk Journ Lann Soc vi, p 189
Hadena latipennis, Wilk Cat xxxm, p 738

Fuscous brown with an olive tinge, legs ringed with ochreous Fore wing with subbasal, ante-, postmedial, and submarginal irregularly waved black lines, the last indistinct, a marginal series of specks, the orbicular and reniform very indistinct, the latter with its lower part obscured by a prominent ochreous spot in the typical form. Hind wing with traces of a postmedial waved line. Underside suffused with whitish, the submarginal line of hind wing prominent and crenulate.

Hab Natal, Madagascar, China, throughout India and Ceylon, Andamans, Philippines, Borneo, Java Exp. 30-36 millim.

AMYNA 251

SECT II (*Ilattia*) Fore wing of male with a small vesicle in cell, with a small valve of scales over it on underside, the median nervure being slightly curved

Amyna axis, Guen Noct 1, p 233
Amyna axis, Guen Noct 1, p 407
Poaphila stricta, Will Cat xiv, p 1476
Celadia flavigutta, Will Cat xiv, p 1688
Celadia perfundens, Will Cat xiv, p 1691
Hattia cephusalis, Will Cat xiv, p 200, Moore, Lep Ceyl 111,
pl 146, figs 4, 4 a, C & S no 2088
Miana mornata, Will Cat xixii, p 677
Celadia obstructa, Will Cat xixii, p 679
Perigea leucospila, Will Cat xixii, p 683
Amyna stellata, Butl A M N H (5) 1, p 162
Amyna undulifera, Butl A M N H (4) xii, p 403
Erastria stigmatula, Snell Tijd v Ent xix, p 55
Stridova albigutta, Will Trans Nat Hist Glasg 1, p 354
Chytoriza tecta, Grote, Check-list, p 33
Hattia cupi eipennis, Moore, Lep Ath p 112, C & S no 2090
Hattia apicalis, Moore, Lep Ath p 112, C & S no 2092
Hattia calamistrata, Moore, P Z S 1881, p 348 C & S no 2057
Perigea supplex, Swinh P Z S 1885, p 452, C & S no 2102

Differs from selenumpha in being much smaller

The typical form is greyish fuscous aris has a white or ochreous spot on lower part of iemform, whilst a third form has a pale apical patch, leucospila, cuprespensis, and renalis have the head, thorax, and fore wing cupreous red-brown, the first has a white spot at end of cell, which the second is without, whilst renalis has a white outline to the iemform not filled in with white, but sometimes with an ochieous spot on it and a large grey patch on the costa before apex

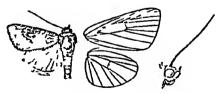


Fig 142 -Amyna octo, &

The form calamistiata is golden brown, with a single series of white specks on the antemedial line and a double series on the postmedial line, the orbicular white, the remform figure-of-8-shaped with white outline

Hab W Indies, S America, Africa Arabia, Japan, China, thi oughout India, Ceylon, and Burma, Andamans, Borneo, Pacific groups of islands Exp 20-30 millim

252 NOCTUIDÆ

*1835 Amyna * monilis, Moore, P Z S 1881, p 348, pl 38, fig 11, C & S no 2091

Head, thorax, and fore wing ochreous, the last with indistinct pale subbasal, ante- and postmedial sinuous white lines, a prominent white spot at base of cell, the orbicular and reinform with white specks on their edges, a maculate white submarginal line, a marginal series of white-edged black specks, some white specks on the costa towards apex. Hind wing ochreous fuscous, with indistinct cell-spot and postmedial line

Hab Sikhim Exp 25 millim

SECT III Male with the vesicle on fore wing larger, the valve of scales being on the upperside and projecting from the median nervure towards the costa

1836 Amyna larentica, n sp

d Head, thorax, abdomen, and fore wing clothed with redbrown and black scales, the last with the medial area darkest, the subbasal and antemedial waved black lines fairly prominent, remiform elongate and rutous with pale edges, the postmedial crenulate line excuived beyond the cell, the submarginal irregular line indistinct and broken, expanding into a dark patch below the costa and with some rufous suffusion before it. Hind wing pale fuscous, with curved postmedial line

Hab Nágas, 6000 feet (Doherty) Exp 26 millim Type in coll

Elwes

Genus BERRESA.

Berresa, Will Cat xv1, p 214 (1858)

Type, B turpus, Wlk

Range Throughout India and Ceylon, Fig., Tonga

Eyes naked and without lashes, proboscis fully developed, palpi upturned, reaching above vertex of head, the 2nd joint fringed with long hair, the 3id prominent, antennæ simple and annulated, thorax without tufts, abdomen with slight dorsal tufts. Fore wing short and square, a vesicle in cell of male, with a valve of long scales over it on underside, cilia not crenulate.

1837 Berresa turpis, Wik Cat xii, p 794, C & S no 1850 Berresa natalis, Wik Cat xii, p 214, Moore, Lep Ceyl iii, pl 146, fig 3, C & S no 2040

Dull brown Fore wing with indistinct subbasal, antemedial, postmedial, and submarginal single waved lines with a few grey scales on them, remitorm represented by a small grey spot

Abdomen and hind wing fuscous, the latter with an indistinct postmedial line

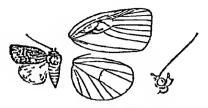


Fig 143 -Berresa turpis, d

Hub Dharmsála, Nilgiris, Ceylon, Fiji, Tonga $E \cdot p$ σ 20, Ω 26 millim

Genus CALLOPISTRIA

Callopistria Hubn Voiz p 216 (1818)
Friopus, Treitschke, Schmett Lui v, 1, p 365 (1825)
Agabra, Wik Jouin Linn Soc vi, p 136 (1862)
Cotanda Moore, P Z S 1881, p 374
Methorasa, Moore P Z S 1881 p 374
Gnamptocera, Butl A M N H (6) viii, p 71 (1891)
Haploolophus, Butl A M N H (6) viii, p 71 (1891)
Dissolophus, Butl A M N H (6) viii, p 71 (1891)
Hv perdasys, Butl A M N H (6) viii, p 71 (1891)
Hemipachycera, Butl A M N H (6) viii, p 71 (1891)
Rhoptrotrichia, Butl A M N H (6) viii, p 71 (1891)

Type, C purpureofasciata, Pill, from Europe

Range N America, W Indies, Palæaictic i egion, throughout India, Ceylon, and Burma, Borneo, Java, New Hebrides,

Solomons, Fin

Eves naked and without lashes, proboscis fully developed, palpi short, obliquely porrect, and roughly scaled, thorax without tutts, abdomen with dorsal tutts on the proximal segments, tore wing with the cilia non-crenulate, the inner margin with tufts of hairs near base and at outer angle

SECT I (Methorasa) Antennæ of male simple and ciliated Fore wing with the outer margin evenly curved, legs lieavily tufted with hair, especially the middle pair

1838 Callopistria latreillei, Dup Lep Fr, Noct iv, pt 1, p 327, pl 120, fig 2, C § S no 2226
Callopistria roseitellum, Will. Cat vii, p 864
Eiastria quieta, Tiest Schmett iii, p 259

Head grey, thorax clothed with dark brown, red-brown, and white hairs, abdomen pale fuscous. Fore wing black irrorated with white, subba-al and antemedial pale waved lines with a white spot between them below median nervure, the orbicular

and reniform grey and indistinct, the postmedial waved line excurved beyond cell, a submarginal series of white dashes crossed by a larger subapical dash which is usually pinkish but sometimes white Hind wing pale fuscous. Underside pale, hind wing with indistinct cell-spot and crenulate postmedial line Hab Europe, Congo, N.W. Himalayas, Nilgiris Exp. 26 millim

1839 Callopistria strigilineata, n sp

d Head, thorax, and abdomen clothed with red-blown and grey scales. Fore wing bright rufous, a short subbasal line, ante- and postmedial double lines composed of short strigge, the latter excurved beyond cell, the orbicular and remform with white outlines, the former round, the latter doubly curved, an ill-defined submarginal band, some white specks on costa towards apex and marginal and cilial series, a white and grey apical patch and a white spot on centre of margin. Hind wing pale, underside with spot at end of cell and postmedial line.

Hab Sikhim (Moller) Exp 34 millim Type in coll Elwes

SECT II Antennæ of male contorted at middle, but not thickened or strongly ciliated

A (Gnamptocera) Fore wing with outer margin evenly curved, legs of male not clothed with long hare, the tarsi and inner spurs of mid legs fringed with hare

1840 Callopistria minuta, Butl Ill Het vii, p 70, pl 130, fig 4

Head and thorax clothed with red-brown mingled with black hairs, abdomen fuscous. Fore wing black, the veins ochreous, the anter and postmedial lines not much curved and conjoined to the orbicular and reniform, the whole space between them filled in with yellow except a triangular patch bounded by the costa, orbicular, and reniform, a submarginal highly dentate ochicous line. Hind wing dark fuscous, underside with indistinct cell-spot and postmedial line.

Hab NW Himalayas Exp 20 millim

1841 Callopistria minor, Himpson Ill Het viii, p 81, pl 146, figs 16, 17

o Differs from minuta in being much darker. Fore wing with the veins and space between the ante- and postmedial lines pale reddish, the submarginal line broken up into niegularly disposed blue-grey specks.

Q Uniformly much darker Hab Nilgiris Exp 22 millim

- B (Dissolophus) For e wing with the outer margin angled, leqs of male clothed with very long tufts of hair, especially the mid tibiæ and tarsi
- 1842 Callopistria repleta, WTL Cat xii, p 865, C & S no 2221

Head and thorax clothed with dark brown, ferruginous, and white hair, abdomen paler, with the dorsal tufts ferruginous. Fore wing dark variegated with red. the veins, subbasal, ante- and postmedial lines pale reddish, the antemedial line curved, the orbicular elongate, the postmedial line not much excurved and forming with the reniform, which is elongate with broad white edges, a 2-mark, an indistinct medial dark crenulate line, some irregularly disposed submarginal broad pale, streaks on apical area. Hind wing fuscous; cilia pale, with a dark line through them, underside with cell-spot and crenulate postmedial line.

Hab Japan, NW Himalayas Erp 40 millim

- SECT III (Hemipachycera) Antennæ of male slightly knotted and contorted at middle, the tibiæ, tarsi of fore legs, and spurs of mid legs moderately hairy, fore wing with the outer margin angled.
- 1843 Callopistria rivularis, Wil. Cat xii, p 867, Hmpsn Il Het ix, pl 163, fig 2, C & S no 2222

Head, thorax, and abdomen dark Fore wing blackish, clouded with grey and irrorated with ochreous, the veins ochreous, a double subbasal ochreous line and similar regularly curved antemedial line, the orbicular and remiform elongate, the postmedial line much excurved beyond the cell and forming with the remiform a ?-mark, some prominent irregularly disposed streaks on apical area, the tufts at base and outer angle long, the latter white Hind wing dark fuscous, the cilia pale, underside dark, with obscure cell-spot and postmedial line

Hab NW Himalayas, Nilgiris, Ceylon, Fiji Evp 30 millim

1844 Callopistria yerburii, Butl P Z S 1884, p 496

Differs from rivilaris in the head and thorax being otherous, the abdomen and hind wing much paler. Fore wing with the antemedial line slightly angled on median nervure, the postmedial line more excurved at vein 4, the apical streaks more diffused, some specimens have a reddish spot beyond the lower angle of cell and the margin reddish

Hab Aden, Nilgiris Frp 32 millim

1845 Callopistria duplicans, Wik Cat xii, p 866, C & S no 2218 Differs from repleta in the fore wing having the antemedial line

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slightly curved, the postmedial line sinuous instead of excurved beyond the cell

Hab Formosa, Silhet, Moulmein Exp 32 millim

SECT IV (Agabra) Antennæ of male expanding into a knot at middle, the portion beyond it being curved and more strongly ciliated, tibiæ and tarsi of fore legs clothed with long hair, the spurs of mid tibiæ tringed with hair

1846 Callopisti ia placodoides, Guen Noct 11, p 296, C & S no 2225

Chestnut Fore wing suffused in parts with purphish white, subbasal, ante- and postmedial dark double lines angled below the



Fig 144
Callopistria placodoides, of

costa, the orbicular and reniform elongate and with white edges, the former traversed by an ill-dehned curved whitish line, the latter by a similar dark line, a dark sinuous line beyond the postmedial double lines, submarginal and marginal white lines with dark edges, angled at centre and with the area between them suffused with purplish. Hind

wing pale fuscous, the cilia whitish, underside with the costal area suffused with red, a cell-spot, postmedial and submarginal lines

Some specimens are much darker than others Hab Nilgiis, Borneo, Java Erp 36 millim

1847 Callopistria æthiops, Butl A M N H (5) 1, p 200, id Ill Het

Differs from repleta in the antemedial line of the fore wing being angled below median nervure, the orbicular small and conjoined to the antemedial line, the remform narrow with fine edges, a white speck beyond lower angle of cell, the postmedial line more excurved beyond the cell, the submarginal streaks finer, one between veius 2 and 3

Hab Japan, Nilgiris Exp 32 millim

1848 Callopisti ia indica, Butl A M N H (6) viii, p 76, pl 1x, fig 8

Head and thorax ochreous, with a few black hairs, abdomen fuscous and ochreous. Fore wing blackish, clouded with grey and iniciated with ochreous, the veins ochreous, a double subbasal ochieous line, a similar antemedial line highly angled just below median nervine, the orbicular elongate, some specimens having a yellow patch below it and the remiorm, the postmedial line much excurved beyond the cell and forming with the remiorm a 2-mark, some prominent irregularly disposed streaks on apical

area, the tufts at base and outer angle long, the latter formed of white hair. Hing wing fuscous, the cilia ochreous, with a dark line through them, underside with discocellular lunule and postmedial line.

Hab NW Himalayas, Canara, Borneo Exp 22-30 millim

- SECT V (Rhopti oti ichia) Antennæ of male with three spatulate hairs on the curved portion, legs very densely clothed with long hair
- 1849 Callopistria recurvata, Moore, Lep Ath p 144, id Lep Ceyl pl 151, fig 1, C & S no 2220

Head and thorax clothed with dark ferruginous and white hair, abdomen paler, with the dorsal tufts terruginous. Forewing differs from *indica* in being more varied with reddish, the veins and lines reddish, the antemedial line more angulated, a medial crenulate black line. Underside of hind wing with more cienulated postmedial line.

Hab China, throughout India, Ceylon, and Burma, Java,

New Hebrides Exp 40 millim

Genus ELUSA

Elusa, Wik Cat vv., p 202 (1858) Seria, Wik Jouin Linn Soc vi, p 193 (1862) Lugana, Moore, Lep Ath p 145 (1882)

Type, E ceneusalis, Wlk, from Borneo

Range Sikkim, Assam, Nilgiis, Ceylon, Andamans, Borneo Eyes naked and without lashes, proboscis tully developed, palpi obliquely upturned, the 2nd joint reaching vertex of head and roughly scaled, the 3rd short. Antenna of male bipectimated, the branches bent round and almost forming a cylinder just before the middle, where the shaft is contorted and the branches form a large hollow cup, after which they gradually diminish to apex, thorax without tufts, abdomen with dorsal tufts. Legs with the tible clothed with dense tufts of hair, hind legs clothed with very long hair to the end of the tarsi. Fore wing with the cilia non-cienulate, the inner margin lobed at base, and with a tuft of long scales at outer angle.

- 1850 Elusa bipars, Moore, P Z S 1881, p 373, pl 38, fig 7, C & S no 1873

 Lugana rufula, Hmpsn Ill Hel vin, p 81, pl 146, figs 22, 23

 Lugana renalis, Moore, Lep Ath p 146, C & S no 2229
- of Hend and thorax very dark red-brown, the cup of antennæ black, abdomen paler. Forewing very dark red-brown, the outer area brighter, traces of subbasal, ante- and postmedial waved lines vol. II.

and nearly straight submarginal series of specks, which are darkest at



Fig 145 —Elusa bipars, of

centre, the orbicular a reddish speck, the reinform figure-of-8 shape and grey with dark centre Hind wing fuscous, or almost white in some Nilgiri and Ceylon specimens

2 with the postmedial area of fore wing paler red-brown, the hind wing

darker

· Hab Nágas , Nilgiris , Ceylon , Andamans Erp 22-26 millim

1851 Elusa cyathicornis, Wil Journ Linn Soc vi, p 194

Differs from bipars in being ferruginous Fore wing uniform in colour, with the lines and stigmata very indistinct, the cilia dark Hind wing dark reddish

Hab Sikhim, Margharita, Assam, Nágas, Borneo Exp 24

mıllım

1852 Elusa antennata, Moore, Lep Ath p 146, C & S no 2228

3 Differs from bipars in having an obscure curved antemedial line to fore wing, a straight submarginal line close to the margin

Hab Sikhim Erp 28 millim

Genus ARBORICORNUS, nov

Type, A ruler, Hmpsn

Range Nágas

Palpi long, porrect, and smoothly scaled, antennæ of male bipectinate, eyes naked and not lashed, thorax smoothly scaled, abdomen with dorsal tufts, tibiæ without spines. Fore wing short and broad, the apex rounded, veins 7, 8, 9, 10 stalked. Hind wing with veins 6, 7 stalked.

1853 Arboricornus ruber, n sp

J. Head and thorax dark red-brown, abdomen paler, with the dorsal tufts dark Fore wing dark red-brown, with a glossy texture and almost uniform, except for three pale specks on costa towards apex Hind wing paler

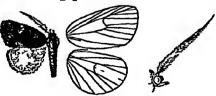


Fig 146 -Arboricornus ruber, &

Hab Nágas, 6000 feet (Doherty) Exp 24 millim Type in coll Elwes.

Genus CARADRINA

Caradrina, Ochs Eur Schmett iv, p 80 (1816)
Luphygma, Guen Noct 1, p 156 (1852)
Dyizela, Wlk Cat v, p 1758 (1858)
Radinacia, Butl A M N H (5) 1, p 161 (1878)
Dadica, Moore, P Z S 1881, p 349
Vapaia, Moore, Lep Ath p 163 (1882)
Leucocosmia, Butl Trans Ent Soc 1886, p 394

Type, C tararaci, Hubn, from Europe Range Universally distributed

Eyes naked and without lashes, proboscis fully developed, pripring upturned, the 2nd joint evenly clothed with hair. Thorax and abdomen without tufts, tabiæ without spines, cilia not crenulate.

SECT I Palpi with the 3rd joint very short Male without tufts of hair on the claspers

A (Caradrina) Male without a cleft corneous ridge on vertex of head

a Antennæ minutely ciliated in male

1854 Caradrina cognata, Moore, Lep Ath p 119, C & S no 2010

Head and thorax pale ochreous brown, palpi with 2nd joint black at sides. Fore wing pale ochreous brown, slightly irrorated with dark scales, subbasal, antemedial, medial, postmedial, submarginal, and marginal indistinct waved lines, the second angled near inner margin, the fourth below the costa, stigmata obsolete or the reniform sometimes small and ochreous with two white specks on it. Abdomen and hind wing pure white, the latter with the veins and margin slightly tinged with fuscous

Hab Sikhim, Poona, Khandála, Nilgiris Erp 24 millim

1855. Caradrina exigua, Hubn Samml eur Schmett, Noct fig 362, C & S no 2122

Caradrina orbicularis, Wlh Cat x, p 294
Caradrina venosa, Butl Ent Mo Mag xvii, p 7, C & S no 2115
Spodoptera cilium, Guen Noct i, p 156, C & S no 2117
Spodoptera insulsa, Wlh Cat xxxii, p 648
Spodoptera erica, Butl P Z & 1880, p 675
Laphygma cycloides, Guen Noct i, p 157
Laphygma macra, Guen Noct i, p 157
Laphygma p caradrinoides, Wlh Cat ix, p 190
Caradrina flavimaculata, Harrey, Grote, New Check-list, p 30
Caradrina insignata, C & S no 2112 (nee Wlh)

Pale ochreous brown Fore wing with the subbasal, ante- and postmedial double lines indistinct, the orbicular small and round, pale or ochreous, the remiform usually less prominent, with ochreous or dark centre, the submarginal line pale, angled below the costa, and with some slight dark streaks before it at middle, a

marginal series of dark specks Hind wing semihyaline opalescent white, the veins and outer margin tinged with fuscous

The form cilium from Java has rather shorter wings

Hab Europe, S Africa, N and S America, throughout the Oriental region, Honolulu Evp 26-32 millim

1856 Caradrina kadenii, Freyer, Beitr Schmett ii, p 147, pl 186

Caladrina himalevica, Koll Hugel's Kaschmin, 1v, p 479

Caradrina flavirena, Guen Noct 1, p 250

Caradrina proxima, Rambur, Lep And pl 18, fig 7 Caradrina alenacea, Movie, P Z S 1881, p 349, C & S no 2105 Caradrina farinacea, Movie, P Z S. 1888, p 411, C & S по 2110 в

Head, thorax, and fore wing grey, the last crossed by six evenly waved indistinct lines, three black specks on middle of costa, reniform prominent and fuscous or brownish, the submarginal line with a brown and ochreous tinge Hind wing pure white or with a fuscous tinge

Hab NW Himalayas, Umballa Eip 34 millim

1857 Caradrina bremusa, Swinh P Z S 1885, p 451, C & S no 2107

Differs from kadenii in the subbasal and antemedial lines of fore wing being dark, the reniform smaller, less prominent, and indented on inner edge, the postmedial line reduced to a series of specks, the outer area more suffused, the submarginal line not brown and ochreous Hind wing fuscous white

Erp 30 millim Hab Poona, Nilgiris

1858. Caradrina coruscantis, Swinh Trans Ent Soc 1885, p 348, pl 9, fig 3, C & S no 2004

Differs from kadenu in being browner ochreous wing irrorated with dark specks, the lines very indistinct, the remform obsolete, series of dark specks on costa and outer margin, the submarginal line dark and diffused Hind wing othreous white, with traces of a postmedial line, the outer area suffused with fuscous

Hab Chaman, S Afghanistan Eip 33 millim,

1859 Caradrina quadripunctata, Fabr Syst Ent p 594, C & S

Noctua grisea, Rott Naturf 11, p 138 Phalæna clavipalpis, Scop Ent Cain p 213

Noctus cubicularis, Schiff Wien Verz p 72

Noctua segetum, Esp Eur Schmett 1v, pl 150, figs 4, 5 Caradrina laciniosa, Donz Ann Soc Ent Fr 1847, p 529, pl 8,

Caradina grisca, Eversm Bull Soc Nat Mose 1848, n, p 215 Caradina congesta, Led Verh zool-bot Ver Wien, 1853, p 372 Caradrina meneticesi, Kretschmar, Berl ent Zeits 1863, p 412 Caradrina cubicularis, var cinerascens, Tengstiom, Cat p 309

Caradrina hugeli, Teld Reis Nov pl 109, fig 13, C & S no 2111

Caradina belucha, Swinh Trans Ent Soc 1885, p 348 pl 9, fig 2, C & S no 2106

Radinaera placida, Moore, Lep Ceyl III, p 30, C & S no 1965

Differs from Ladenzi in being pale ochreous Fore wing with

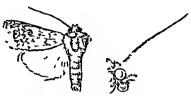


Fig 147 — Caradrina quadripunctata & {

the waved lines more prominent, the reniform smaller, a series of dark streaks on costal half of submarginal line. Hind wing pure white, with slight dark margin

Hab Europe, S Africa, Quetta, Bengal, Ceylon Eup 30 millim

1860 Caradrina delecta, Moore, P Z S 1881, p 349, pl 38, fig 15, C & S no 2109

d Differs from quadripunctata in the transverse lines of the forewing being darker, the orbicular and reniform black, with reticulated markings of the ground-colour, the submarginal ochie ous and brown line straight

A specimen from Umbálla is more ochreous Hab Umbálla, Sikhim Erp 33 millin

1861 Caradrina obtusa, *Hmpsn Ill Het* viii, p 79, pl 145, fig 6

Brownish ochieous Fore wing with faint traces of subbasal, antemedial, postmedial, and submarginal waved lines, a faint dark spot at lower angle of cell Hind wing pure white

Hab Ganjam, Nilgins, Bernardmyo, Burma Enp. & 25,

♀ 28 millim

1862. Caradrina sincera, Swinh P Z S 1889, p 411

Q Brownish ochreous Fore wing with very faint traces of ante- and postmedial waved lines, and dark spot at lower angle of cell Hild wing paler Underside without markings

Hab Simla Exp 36 millim

1863 Caradrina uniformis, Swinh Trans Ent Soc 1885, p 350, pl 9, fig 6, C & S no 1919

Differs from sincera in the palpi not being black at sides. Fore wing with a faint submarginal pale line slightly angled below the costa, no spot at lower angle of cell. Hind wing semilyaline white, with an ochieous tinge.

Hab Quetta Eap 32 milhm

1864. Caiadrina intaminata, Wik Cat xxxii, p 698, Hmpsn Ill Het viii, pl 143, fig 5, C & S no 1990

Head and thorax grey, irrorated with black scales palpi black

at sides, abdomen fuscous, tarsi black, tinged with white. Fore wing grey, irrorated with black, the subbasal and antemedial lines single, oblique, and arising from black patches on costa, the orbicular and reniform small black spots, a broad diffused medial black band angled on median nervure, the postmedial line minutely dentate, the submarginal irregularly waved line arising from a large blackish patch on costa, a series of marginal black specks. Hind wing semihyaline white, the veins and outer margin tinged with fuscous

Hab Nilgiris Eap 35-38 millim

1865 Caradrina bicornis, Hmpsn Ill Het viii, p 77, pl 145, fig 18

Silvery grey Fore wing with the subbasal, ante- and postmedial lines very indistinct, the orbicular and ieniform taking the shape of black lunules, the former turned towards the costa, the latter towards outer margin and sometimes with dark specks above them on the costa, the orbicular sometimes obsolete, a nearly straight pale submarginal line. Hind wing opalescent white, with more or less fuscous on outer margin

Hab Nilgiri plateau Eup 30 milhm

1866 Caradrina thwaitesi, *Moore, Lep Ceyl* 111, p 61, pl 151, fig 2, C & S no 2227

Pale brown, head and thorax marked with black. Fore wing pale brown, irrorated and blotched with black, the subbasal line obscured by black blotches, the ante- and postmedial double lines reduced to series of striæ, the latter with diffused black inside it, reniform black and ill-defined, a broad submarginal waved black band from costa to vein 4, a marginal series of prominent black spots. Hind wing dark fuscous. Underside of hind wing with cell-spot and postmedial line.

Some specimens have the fore wing more variegated with chestnut and dark brown, the orbicular and reniform fuscous, the apical part of the submarginal band forming a prominent black patch

Hab Ganjam, Ceylon Exp 30 millim

1867 Caradrina transversa, Moore, Lep Ath p 95, pl 4, fig 5, C & S no 1648

d Head and thorax clothed with black-brown and white scales, abdomen fuscous brown Fore wing clothed with black-brown and white scales, traces of dark double ante- and postmedial lines, the latter excurved beyond the cell, the orbicular and reniform very indistinct, a submarginal band formed of ill-defined black-brown streaks and blotches Hind wing fuscous brown

Hab Sikhim, Nágas Exp 32 millim

1868. Caradrina postfusca, Hmpsn Ill Het 1x, p 95, pl 162, fig 8

d Head and thorax fuscous brown, the scales tipped with white, abdomen fuscous. Fore wing dark fuscous, irrorated with silvery-grey scales, a large black spot in end of cell, traces of double waved ante- and postmedial lines, and a single submarginal line with some black streaks on it towards apex, and white on it above middle and towards outer angle. Hind wing greyish fuscous, with a broad ill-defined marginal band

Hab Ceylon Erp 30 millim

1869. Caradrina ochreipuncta, n sp

Head and thorax dark grey-brown, abdomen yellowish brown Fore wing dark grey-brown, with a slight purplish tinge, the subbasal, antemedial, and submarginal sinuous lines and postmedial cresulate line indistrict, the orbicular represented by a dark speck, the remform by an ochreous spot, three ochreous specks on costa towards apex. Hind wing pale fuscous, underside with cell-spot and postmedial line.

Hab Sikhim Exp, & 40, \$\times\$ 42 millim Type in coll Elwes

1870 Caradrina rufescens, n sp

d Head, thorax, and fore wing ferruginous red, irrorated with black. Fore wing with indistinct double waved ante- and post-medial lines, the latter excurved beyond the cell, a dark dentate medial line, the orbicular and remiform indistinct, an indistinct irregularly dentate submarginal line. Abdomen and hind wing fuscous, the latter with the cilia white and fuscous.

Hab Ganjam (Minchin) Exp 26 millim Type in coll

Elwes

1871 Caradrina furtiva, Swinh P Z S 1885, p 448, C & S no 1713

d Head and thorax greyish brown, abdomen with an ochreous tinge. Fore wing grey-brown, slightly suffused with ochreous, the veins streaked with black, the orbicular and remform grey on a blackish patch, cilia streaked with white. Hind wing pale fuscous

Hab Poona Erp 24 millim

1872 Caradrina picta, Swinh MS

Head, thorax, and abdomen clothed with dark and white scales, the first segment of abdomen with a dorsal tuit of metallic black scales. Fore wing bright chestnut-red, suffused with white scales, indistinct ante- and postmedial waved dark lines, a lumile at end of cell, beyond which is a patch without white scales, red apical and subapical marks. Hind wing brown, with an indistinct large

dark cell-spot, a grevish patch at anal angle, on which is an orange and dark mark. Underside pale, with large dark cell-spot to each wing, very prominent on hind wing, a diffused postmedial rufous band.

Hab Chekiang, China, Sikhim, Khásis Erp 28 millim Type in B M

1873 Caradrina ochreimargo, n sp

Q Head and thorax pale dusky reddish, abdomen fuscous, with otherous anal tuft. Bore wing pale dusky reddish, with obliquely sinuous antemedial line, the orbicular a small pale spot, reinform pale with dark centre, and crossed by an indistinct medial line angled at lower end of cell, an excurved minutely dentate postmedial line, traces of an irregularly sinuous submarginal line a fuscous patch at centre of outer margin, a marginal series of black specks. Hind wing fuscous, the outer area darkest, the margin and ciha bright otherous. Underside of fore wing fuscous, with broad otherous imargin hind wing otherous, with fuscous postmedial line, the area beyond it towards anal angle fuscous.

Hab Sikhim (Elwes) Exp 40 millim Type in coll Elwes

b Antennæ brpectmated in male

1874 Caradima pectinata, n sp

d Pale ochreous Fore wing with indistinct waved subbasal, ante- and postmedial lines, the orbicular and reniform barely traceable, an irregularly dentate indistinct submarginal line Hind wing white, the margin slenderly fuscous

Hab Nagas, 1500 feet (Doherty) Erp 28 millim Type in coll

Elwes

- B (Leucocosmin) Mule with a cleft corneous rulge clothed with scales on vertex of head, abdomen clothed with woolly pile, build stout
- 1875 Caradrina reclusa, Wh. Jouin Linn Soc vi, p 185
 Radinacia thoracia, Moore, Lep Ccyl in, p 31, pl 148, fig 4,
 C & S no 1967
 Leucocosmia ceres, Bull Trans Ent Soc 1886, p 394, pl vi,
 fig 10
 Caradrina euthusa, Hmpsn Ill Het vin p 79, pl 145, fig 1

Pale chestnut-brown Fore wing with very faint traces of the usual markings, a prominent ochreous postmedial line slightly curved from the costa to vein 2, and not waved Hind wing paler

With the collar and abdomen black, the 2nd joint of palpi black. Fore wing with the basal area clothed with ochieous livir, hind wing with the base yellowish, some specimens have a black speck in cell of fore wing and series of specks on the postmedial line and margin

Hab Nilgiris, Ceylon, Borneo, Fiji Enp 30-34 millim

SECT Il Palpi with the 3rd joint somewhat longer

A (Radinacia) Antenna of male minutely ciliated

1876 Caradrina externa, Will. Cat. xxxiii, p. 715, C & S nos 1915 & 2110 A

Dark grevish fuscous Fore wing with traces of waved sub-basal, anteinedial, and medial lines, the orbicular and remitoim very indistinct, traces of a waved postmedial line with a series of specks on it a more prominent nearly straight submarginal line Hind wing piler. Underside with a postmedial line to both wings, hind wing with a cell-spot

Hab Dharmsala, Punjab, Sikhim Eip 23-34 millim

1877 Caradrina lineosa, Moore, P Z S 1881, p 349, C & S no 2116 Graphiphora stellata, Moore, Lep Ath p 119, C & S no 2018

Grevish brown Fore wing with the veins darker, prominent slightly waved subbasal and antemedial dark lines, a medial line angled at lower end of cell, a nearly straight postmedial line, a waved submarginal line, the orbicular represented by a dark speck, the remitorm by a white spot with a speck above it Underside with slight lumile at end of cell and postmedial line to both wings

Anal tuft in one Japanese male ochreous white Hab Japan, Kúlu, Punjab Erp, & 32, \$\times\$47 millim

- 1878 Caladrina renalis, Moore, Lep Ceyl III, p 30, pl 147, fig 4a, C & S no 1966
- Q Greyish fuscous Fore wing with indistinct waved sub-basal, antemedial, postmedial, and irregular submarginal line, a white speck near base of cell, the orbicular a black ochreous-ringed speck, the remform an ochreous spot with white specks above and below it, a marginal series of white specks. Hind wing pale, suffused with fuscous, underside with cell-spot and postmedial line

Hab Nilgiris, Ceylon Erp 26 millim

1879 Caradina divisa, Moore, Lep Ath p 123, C & S no 1792

Dark brown, with golden reflections Fore wing with a sub-basal pale line, an antemedial oblique line, the orbicular and remform large with pale edges, the postmedial line excurved beyond the cell, the submarginal line ochreous and nearly straight, a marginal series of dark specks. Hind wing fuscous, underside with faint cell-spot and postmedial line.

Hab NW Himalayas, Sikhim Evp 30 millim

1880 Caradrina opacaria, Swinh Trans Ent Soc 1890, p 264, pl 8, fig 3

Head, thorax, and fore wing bright red-brown, the last with waved subbasal and antemedial lines, the orbicular and reniform small, pale, and indistinct, a medial diffused line, a postmedial line bent outwards beyond the cell, with slight specks on the veins beyond it, an irregularly waved submarginal line. Abdomen and hind wing pale, the latter with the outer margin darker

Hab Rangoon Eap, o 30, ♀ 35 millim.

- 1881. Caradrina variana, Swinh P Z S 1886, p 444, pl 40, fig 10, C & S no 1968
- Q Grey-brown Fore wing with a subbasal short dark line, a waved antemedial line, an indistinct diffused medial band, very indistinct waved postmedial and submarginal lines. Hind wing pale

Hab Mhow Exp 26 millim

- 1882 Caradrina cervina, *Moore, P Z S* 1881, p 348, pl 38, fig 12, *C & S* no 2089
- Q Golden brown Fore wing with indistinct subbasal waved line, an antemedial oblique line angled below the costa, the orbicular and reniform small and indistinct, the latter with slight ochreous outline, a medial diffused line angled at median nervue, a postmedial line excurved beyond the cell, a slight sinuous submarginal ochreous line. Hind wing fuscous, underside with cell-spot and curved postmedial line.

Hab Sikhim Eap 30 millim

1883 Caradrina castaneipars, Moore, Lep Ath p 122, C & S no 1920

Head, thorax, and fore wing dark purplish chestnut, the last with traces of ante- and postmedial waved lines and medial band excurved to end of cell, cilia pinkish. Abdomen and hind wing pale, with an ochreous fuscous tinge, underside with speck at end of cell, both wings with traces of a postmedial line.

Hab Sikhim Erp 30 millim

- 1884 Caradrina melanosticta, Ilmpsn Ill Het viii, p 79, pl 145, fig 13
- d Dull brown Fore wing irrorated with a few black scales, indistinct waved subbasal and antemedial black lines, a postmedial line excurved beyond the cell, dentate on vein 2 and with a black speck beyond it above vein 1, three subapical black specks

and a marginal series of minute specks Hind wing paler, the underside with a postmedial line

Hab Nilgiri plateau Eip 28 millim

B (Dyızela) Antennæ of male bipectinate with short branches, fasciculate in femule

1885 Caradrina bosca, Swinh Trans Ent Soc 1890, p 266

Dull brown Fore wing with very indistinct obliquely curved antemedial and inedial waved lines, and waved erect postmedial line with a black spot beyond it below the costa, a marginal series of black specks. Hind wing fuscous brown, underside with indistinct cell-spot and waved submarginal line.

Hab Rangoon, Bassein, Bhámo Esp 34 millim

1886 Caradrina plagiata, Wik Cut xv, p 1758, C & S no 1877 Oglasa costipannosa, Swinh Trans Lnt Soc 1890, p 266 Oglasa costiplaga, Swinh Trans Lnt Soc 1891, p 153

Pale reddish grey-brown Fore wing with large chocolate sub-semicircular costal patch with pale edges before apex, oblique indistinct sinuous antemedial and medial lines, some black specks between the patch and inner margin, a pale curved submarginal line, a marginal series of black specks. Hind wing fuscous brown, underside with distinct cell-spot and post-medial line.

Hab Moulmein, Rangoon Exp 28-32 millim

SECT III Male with the claspers clothed with long hair

A Palps with the 3rd joint minute, antennæ of male minutely ciliated

1887 Caradrina fasciata, Moore, P Z S 1867, p 54, C & S no 2011 Graphiphora interstructa, Moore, Lep Ath p 118, C & S no 2014

Red-brown, with an ochreous or greyish tinge, pectus and palpi blackish. Fore wing with subbasal and antemedial waved lines, orbicular small, dark, and round, or obsolete, a diffused curved medial line, remform chestnut, with white specks on its outer edge, postmedial line curved and with a series of specks beyond it, an irregularly waved submarginal pale line, a marginal series of specks. Hind wing fuscous brown. Underside of hind wing with a cell-spot and broad fuscous marginal band.

The form interstincta is redder chestnut Hab Sikhim, Bombay Eip, 334, 237 millim.

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B (Vapara) Palpr with the 3rd joint long, antennæ of male fasciculate

1888 Caradrina mus, Hmpsn Ill Het viii, p 77, pl 145, fig 9

Greyish fuscous, palpi dark at sides. Fore wing with very indistinct subbasal line, a slightly oblique straight antemedial line, traces of a chestnut reniform stigma, the postmedial line curved and slightly lunulate, the irregularly waved submarginal line indistinct. Underside of fore wing with the outer area greyish, hind wing greyish, with prominent cell-spot and postmedial line.

Hab Nilgiri plateau Exp 30 millim

1889 Caradrina indistincta, Moore, Lep Ath p 163, id Lep Ceyl iii, pl 159, fig 7, C & S no 2859

Head and collar chestnut, thorax brownsh ochreous, abdomen fuscous Fore wing brownish ochreous, with traces of transverse lines, the orbicular sometimes represented by a dark speck, remform with some dark specks round it, an indistinct submarginal line, with some dark diffused marks on each side of it near apex, a marginal series of black specks. Hind wing fuscous, underside with cell-spot and postmedial line

Hab Sikhim, Nilgiris, Ceylon, E Pegu Exp 40-42 millim

Genus TATHORHYNCHUS, nov.

Type, T vinctale, Wlk

Range Aden, throughout Peninsular India, Australia

Differs from Caradrina in the palpi having a long poriect tuft of hair on the second joint produced to a point, antennæ fasciculated, thorax and abdomen slender, legs much longer Fore wing longer and narrower Hind wing more ample

1890 Tathorhynchus vinctale, Will Cat xxxiv, p 1476, C & S no 4160



Fig 148
Tathorhynchus vinctale, & }

Head and thorax grey, abdomen whitish Fore wing whitish, thickly irrorated and suffused with grey-brown, the outer area brownish, the orbicular represented by an ochreous speck, the remform by a white speck, traces of a submarginal series of grey and fuscous lunules and marginal series of dark lunules. Hind wing pale fuscous, darkest towards outer margin.

Hab Aden, Campbellpur, Combatore, Australia Exp 34

Genus LEUCANIA.

Leucania, Ochs Eur Schmett 1v, p 81 (1816) Donachlora, Sodoffsky, Bull Soc Nat Mosc 1837, p 14 Aletia, Hubn Verz p 239 (1818) Hyphilara, Hubn Verz p 239 Boroha, Moore, P Z S 1881, p 334

Type, L comma, Linn, from the Palæarctic region

Range Universally distributed, except the Australian region Palpi obliquely upturned, the 2nd joint roughly scaled, the 3rd prominent, short, naked, and depressed, proboscis fully formed; eyes hairy, antennæ minutely ciliated in male, head not deeply retracted into the thorax, which is smoothly scaled, abdomen with scarcely a trace of dorsal tufts on basal segments, tibiæ and tarsi clothed with short hair. Fore wing with veins 8 and 9 anastomosing to form the arcole, vein 7 being given off from the end of it 10 from before the end

- A Fore wing with a prominent, short, white L-mark or streak on median nervure
- a Males with large areas of metallic scales on the underside of wings, and large paired tufts of black hairs on the basal segment of abdomen below
- 1891 Leucania decisissima, Wik Cat xxxii, p 624, Butl Ill Het vi, pl 109, fig 9, C & S no 1667
 Leucania nareda, Feld Reis Nov pl 109, fig 9
 Leucania lanceata, Moore, P Z S 1881, p 340, C & S no 1678
 Leucania pulchra, Snell Midd-Sum, Lep iv p 41, pl 4, figs 3, 4
- d Head, thorax, and abdomen reddish ochreous, the last suffused with fuscous Fore wing ochreous, the veins outlined by rufous streaks, especially those limiting the cell, a white L-mark on median nervure with a black speck inside it, a pale oblique

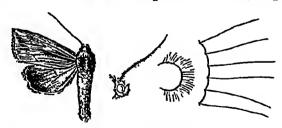


Fig 149 —Leucania decisissima, d

fascia from the apex outlined by dark suffusion, antemedial, postmedial, and marginal series of black specks, the first two curved and the first obsolescent Hind wing ochreous, suffused with fuscous, especially on outer area Underside with the disk of fore wing and whole of hind wing except the costa and inner maigin clothed with golden-silvery scales, costa of fore wing with a post-

medial black spot

Q With more fuscous suffusion on the fore wing, especially in the cell and on each side of the apical streak. Underside without silvery areas, hind wing with a black cell-spot and postmedial series of specks.

Hab Sikhim, Assam, Nilgiris, Ceylon, Andamans, Sumatra

Exp 31 millim

1892 Leucania hamifera, Wik Journ Linn Soc vi, p 179, C & S no 1676 Leucania subnitens, Swinh Trans Ent Soc 1890, p 218, pl vii, fig 1

Differs from decisissima in being paler, the whole cell of fore wing filled in with rufous, the ante- and postmedial series of specks absent and the marginal series minute. Hind wing much paler Underside with no costal spot on fore wing

Hab Sylhet, Bhamo, Borneo, Java Erp 38 millim

- 1893 Leucania inframicans, Hmpsn Ill Het ix, p 90, pl 161, fig 2
- of Differs from decisissima in the head, thorax, and fore wing being grey with a pinkish tinge without trace of ochreous. Fore wing with the suffusion in the cell and outlining the apical streak olive-brown, the L-mark very prominent, veins 3 and 4 streaked with white, and with black streaks above them, some blackish streaks above inner margin, chia intersected with white, no series of black specks. Hind wing white, the central outer area suffused with fuscous

Hab Pundaloya, Ceylon Exp 38 millim

- b Males without silver areas or black tuft on underside
- 1894 Leucania rufistrigosa, Moore, P Z S 1881, p 337, C § S no 1691 Leucania iufescens, Moore, Lep Ath p 102, C § S no 1690 Leucania dharma, Moore, P Z S 1881, p 338, pl 37, fig 17, C § S no 1670

Differs from decisissima in being more suffused with rufous on the upperside and the underside of male being marked as in the female of that species

A much greyer form is found on the Khásis Hab Dharmsála, Umballa, Sikhim Exp 34 millim

Leucania l-album, Linn Syst Nat XII, p 850, Hubn. Samml

eur Schmett iv, fig 227

Leucania penicillata, Moore, P Z S 1881, p 335, C & S

no 1684

Leucania bistrigata, Moore, P Z S 1881, p 334, C & S

no 1660

Differs from inframicans in being darker, the abdomen fuscous, hind wing dark fuscous, cilia of both wings with fine pale and dark lines through them. Underside of male without the silvery areas and with a cell-spot and postmedial series of specks to hind wing.

Hab Europe, NW Himalayas, Sikhim, Burma, Nilgiris

Exp 37 millim

- 1896 Leucania vittata, Hmpsn Ill Het viii p 69, pl 144, fig 4
- of Ochreous white Fore wing with red-brown suffusion in and beyond the cell and beyond the apical oblique fascia, a conspicuous black streak from the base below the median nervure, the white streak on median nervure short, broad, and edged with black, the veins of outer area streaked with white, some black beyond lower portion of the apical fascia, a marginal series of black specks, cilia intersected with white. Hind wing with the outer area suffused with fuscous. Underside pale ochreous, the fore wing suffused with fuscous, except the inner area and veins of outer area, hind wing with the costal and outer areas suffused with fuscous.

Hab Nilgiris Erp 37 millim

- B Fore wing with the white streak on median nervure long and narrow, reduced to a point or obsolete
 - a Fore wing with the ground-colour ochreous
- 1897. Leucania vana, Swinh P Z S 1885, p 453, pl 27, fig 9, C & S no 2003
- des, vertex of thorax with a black patch centred with red-brown Fore wings with the veins pale-streaked, a black mark on lobe of inner margin, a broad black fascia below median nervure from base to vein 2, black patches beyond the cell betwen veins 2, 3 and 4, 6, a black spot at centre of cell, apical streak prominent, with diffused fuscous on each side of it, and with black spots beyond it, cilia pinkish Hind wing ochreous white Underside immaculate Hab Poona Eap 28 millim
- 1898 Leucania howra, Moore, P Z S 1881, p 337, pl 37, fig 16, C & S no 1677

 Leucania basilinea, Swinh Trans Ent Soc 1890, p 220, pl vii, fig 6
- d Head and thorax brownish ochreous, abdomen white Fore wing brownish ochreous, a prominent black-brown fascia below median nervure from the base to origin of vein 2, a slight white streak on median nervure, slight brown streaks in inter-

spaces of outer area Hind wing pure white Underside immaculate

Hub Calcutta, Bhámo, Burma Esp 34 millim

- 1899 Leucania subsignata, *Moore*, *P Z S* 1881, p 336, *C § S* no 1694
- d Differs from rufistrigosa in the fore wing being shorter and squarer, with no white streak on median nervure, the hind wing only suffused with fuscous on central outer area. Underside with the postmedial line obsolete on fore wing and replaced by a series of specks on hind wing, no maiginal series of specks

Hab NW Himalayas, Poona Exp 26 millim

1900 Leucania compta, Moore, P Z S 1881, p 336, pl 37, fig 8, C & S no 1664
Leucania canaraica, Moore, P Z S 1881, p 339, C & S no 1662
Leucania nefasta, Swinh Trans Ent Soc 1890, p 219
Leucania stramen, Hmpsn Ill Het viii p 68, pl 144, fig 2

d Pale ochreous Fore wing with slightly darker streaks in the interspaces, the white streak on median nervine nariow, indistinct postmedial and marginal series of black specks. Hind wing pure white and semibyaline, the apical portion of outer margin tinged with fuscous. Underside of fore wing with postmedial costal spot and fuscous suffusion beyond end of cell, hind wing with the costal area ochreous, irrorated with dark scales.

2 The ante- and postmedial series of specks on fore wing obsolete, apex of hind wing without fuscous suffusion, underside

without fuscous suffusion or costal speck

One specimen from the Nágas has daiker hind wings Hab Nágas, Ganjam, Canara, Ceylon, Nilgiris, Bhámo, Rangoon Exp 28 millim

- 1901 Leucania homopterana, Swinh Trans Ent Soc 1890, p 219, pl vii, fig 12
- To Whitish ochreous Fore wing with the apex rounded, the veins pale-streaked, the interspaces with fine red-brown streaks, the white streak on median nervure long and narrow Hind wing white, with some fuscous suffusion on outer margin Underside without cell-spot or postmedial series of specks to either wing Hab Rangoon Exp 28 millim
- 1902 Leucania byssina, Swinh P Z S 1886, p 442, pl 40, fig 6, C & S no 1661
- Q Head, thorax, and fore wing otherous white, irrorated with dark scales. Fore wing with a black speck at lower angle of cell and postmedial and marginal series of specks, the former curved Hind wing pure white. Underside immaculate

Hab Mhow Erp 28 millim

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1903 Leucania abdominalis, *Moore, P Z S* 1881, p 338, *C & S* no 1656

Whitsh ochreous Fore wing with the veins indistinctly pale-streaked, the streak on median nervure long, narrow, and indistinct, the dark suffusion below median nervure and outlining the apical fascia narrow and often slight, an indistinct postmedial curved series of dark specks, and in some specimens a marginal series. Hind wing white suffused with fuscous. Underside grey irrorated with dark scales, fore wing with the disk fuscous, a postmedial spot on costa, hind wing with cell-spot and postmedial series of specks.

Hab Dharmsála, Khandála, Bengal Exp 39 millim

1904 Leucania sinuosa, Moore, Lep Atk p 102, C & S no 1693

Head and thorax ochreous white, abdomen fuscous, ochreous at extremity Fore wing ochieous white, a diffused dark brown streak along median nervure, expanding from beyond end of cell to the outer margin below apex, a black spot at centre of cell, a white streak on median nervure expanding into a spot at the angle of cell, often disconnected from the streak, denticulate ante- and postmedial curved black lines, a series of dark marginal and cibal spots Hind wing dark fuscous Underside with postmedial and marginal series of black specks, hind wing with a prominent cell-spot

One specimen from E Pegu is slightly redder, the dark orbicular and reniform stigmata larger, the ante- and postmedial sinuous

lines much less prominent

Hab Dharmsála, Sikhim, E Pegu Exp 38 millim

- 1905 Leucania denticula, Hmpsn Ill Het 1x, p 90, pl 161, fig 10
- Q Differs from sinuosa in wanting the dark brown fascia below median nervure of fore wing and beyond the cell, so that the dark quadrate reinform stands out as conspicuously as the orbicular, the white on median nervure almost obsolete

Hab Ceylon Erp 44 millim

- 1906 Leucania exempta, Wlh. Cat xi, p 710, C & S no 1671 Leucania costalis, Moore, P Z S 1877, p 603, pl 59, fig 11, C & S no 1666
- P Differs from denticula in the reniform stigma being rufous, the ante- and postmedial lines less prominent, the hind wing paler

Hab Sikhim, Malabar, Ceylon, Burma, Andamans Evp 38 millim

1907 Leucania v-album, Hmpsn Ill Het viii, p 69, pl 144,fig 10

Differs from sinuosa in the fore wing being slightly suffused vol. ii

with ferruginous in parts, a short dark streak on median nervure from the base, the area in, beyond, and above end of cell suffused with dark brown, disconnected from the dark mark on margin below apex, and enclosing the ochieous orbicular and reniform stigmata, which are conjoined into a broad V-shaped mark, the ante- and postmedial lines waved and indistinct. Underside more uniformly suffused with fuscous

Hab Nilgiris Exp 34 millim

b For evering with the ground-colour brownish ochreous or olive-brown.

Leucania nainica, Moore, P Z S 1881, p 337, pl 37, fig 15, C & S no 1682
Leucania griseofasciata, Moore, P Z S 1881, p 339, C & S no 1675
Leucania percisa, Moore, P Z S 1888, p 410
Leucania commoides, Butl Ill Het vii, p 8 (nec Guen)
Leucania irrorata, Moore, P Z S 1888, p 409

Differs from abdominahs in being more or less irrorated with fuscous, the apical fascia of fore wing almost obsolete and only extending to vein 5

The form namica=griseofasciata has an olive-brown tinge, the hind wing and underside dark fuscous, whilst percisa=irrorata is paler and ochreous

Hab NW Himalayas, Khásis Exp 39 millim

1909 Leucania semiusta, Hmpsn Ill Het viii, p 69, pl 144, fig 17

Q Fore wing more acute at apex, whitish, with a slight ochreous-brown tinge Fore wing irrorated with dark scales, a large brick-red and fuscous diffused patch on centre of disk, with traces of the pale orbicular and remiform stigmata on it and conjoined to a fuscous patch on outer margin below the apex. Hind wing smoky black, the costa, inner area, and cilia whitish

One specimen has the fore wing without markings, the underside

of hind wing with large cell-spot and postmedial line.

Hab Nilgiris Exp 38 millim

1910 Leucania modesta, Moore, P Z S 1881, p 335, pl 37, fig 11, C & S no 1681

Differs from semiusta in the diffused dark patches of the fore wing being slightly developed some specimens have a black speck at end of cell and an indistinct sinuous postmedial line, both wings with a marginal series of black specks. Underside with cell-spot to hind wing and postmedial line on both wings

Hab Sikhim Exp 44 millim

1911 Leucania loreyi, Dup Lép France, iv, p 81, pl 105, fig 7,
C & S no 1680
Leucania exsanguis, Guen Noct 1, p 83, C & S no 1672

Leucania exterior, Wlk Cat ix, p 106, C & S no 1673
Leucania designata, Wlk Cat ix, p 107, C & S no 1669.
Leucania tenebrifera, Wlk Cat ix, p 113
Leucania collecta, Wlk Cat ix, p 105, C & S no 1663
Leucania denotata, Wlk Cat ix, p 107, C & S no 1668
Leucania thoracica, Wlk Cat ix, p 106, C & S no 1696
Leucania albistigma, Moore, P Z S 1881, p 337, pl 37, fig 9,
C & S no 1659

Ochreous Fore wing with a dark or red brown suffusion on median nervure and outlining the obscure apical fascia, a post-medial curved series of specks, a white speck at lower angle of cell. Hind wing semihyaline white. Underside immaculate Some specimens have the head, thorax, abdomen, and fore wing smoky brown, irrorated with dark specks, hind wing with some fuscous on outer margin.

Hab Europe, throughout India, Burma, and Ceylon Evp

34-42 millim

1912 Leucania fragilis, Butl P Z & 1883, p 160, C & & no 2005

Grey-brown Fore wing with indistinct waved ante- and postmedial lines, the latter curved, a white speck at lower angle of cell Hind wing pale with a slight brown tinge

A specimen from the Chindwara district is darker than typical

specimens, the larva there does much damage to wheat

Hab Simla, Dharmsála, Chindwara district, Central Provinces Exp 30-32 millim

- c Fore wing with the ground-color pale brown, brick-red, or yellowish, orbicular and reniform stigmata traceable
- a' Males without paired tufts on basal segment of abdomen below
- 1913 Leucania unipuncta, Haw Lep Brit p 174 (1803)
 Leucania extranea, Guen Noct 1, p. 77, no 104, C & S
 no 1674
 Leucania antica, Will. Cat 1x, p 100
 Leucania convecta, Will. Cat xx, p 711
 Leucania separata, Will. Cat xxxii, p 626
 Leucania adusta, Moore, P Z S 1881, p 335, C & S no 1657
 Leucania consimilis, Moore, P Z S 1881, p 336, pl 37, fig 19
 C & S no 1665
 Leucania trifolii, Butl. Trans. Ent. Soc. 1882, p 114
 Leucania saccharivora, Butl. Trans. Ent. Soc. 1882, p 115

Pale brick-red or very pale brown and irrorated with dark specks and blotches. Fore wing with slight traces of the orbicular and reniform stigmata, a minute white speck at lower angle of cell with a black speck inside it, fairly prominent postmedial and marginal series of black specks, the former curved, an indistinct oblique dark apical streak. Hind wing pale suffused with fuscous, in the red specimens less suffused towards base. Underside of

т 2

hind wing sometimes with faint cell-spot and postmedial series of specks

Hab Universally distributed Exp 44-50 millim

1914 Leucania pallidicosta

Leucama albicosta, Moore, Lep Ath p 97, C & S no 1702 (præocc)

Differs from the red form of unipuncta in the vertex of head of the costa of fore wing and veins of outer area being whitish Hab NW Himalayas, Sikhim, Ceylon Exp 45 millim

- 1915 Leucania fraterna, Moore, P Z S 1888, p 410, Butl Ill Het vii, pl 126, fig 9
- 3 Differs from pallidicosta in the vertex of head and abdomen being rufous fore wing without the postmedial series of specks and apical streak Underside uniformly suffused with rufous Hab Dharmsála Exp 47 millim
- 1916 Leucania angulifera, Moore, P Z S 1881, p 333, C & S no 1703

Reddish ochreous Fore wing with an antemedial dark line oblique from costa to below cell, where it is acutely angled, reniform ochreous and ill defined, a nearly straight oblique dark postmedial line, a slight marginal shade not reaching apex Hind wing dark fuscous Underside with postmedial line to both wings

Hab NW Himalayas Eap 34 millim

- 1917. Leucania albivitta, Hmpsn Ill Het viii, p 68, pl 144, fig 16
- Q Head and thorax reddish brown, abdomen fuscous Fore wing red-brown, indistinct curved ante- and postmedial waved lines, a short pure white streak on median nervure, faint pale orbicular and remiform stigmata. Hind wing fuscous. Underside with a marginal series of specks, hind wing with prominent cell-spot.

Hab Nilgiris Exp 33 millim

1918 Leucania rufipennis, n sp

d Head and thorax pinkish red, abdomen fuscous, the anal tuft ochreous. Fore wing pinkish red, the veins white, the median nervure and veins 3 and 4 prominently so, a whitish fascia from apex, traces of a postmedial series of black specks. Hind wing fuscous, the cilia pinkish. Underside of fore wing with the disk fuscous, hind wing with cell-spot and postmedial series of specks.

Hab Manipur (Doherty) Eap 36 millim Type in coll Elwes

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- 1919 Leucania cinnamomea, Moore, P Z S 1881, p 352, pl 38, fig 17, C & S no 2032
- 3 Pale rufous Fore wing with nearly straight ochreous and rufous subbasal, antemedial, postmedial, and submarginal lines, the antemedial outwardly, the postmedial inwardly oblique, the orbicular and reniform very large, with ochreous and rufous outlines, the former oblique, a diffused fuscous medial line, a marginal series of dark specks. Hind wing reddish fuscous, the margin and cilia pale rufous. Underside of both wings with prominent cell-spot and curved postmedial line.

Hab Sikhim Erp 42 millim

- 1920 Leucania nigrorenalis, n sp
- Q Head and thorax dirty grey, palpi black at sides, abdomen fuscous. Fore wing brownish grey, irrorated with black, a black spot in cell, a medial band from cell to inner margin, an elongate lunule at end of cell, with a large triangular fuscous patch beyond the lower angle, a sinuous submarginal pale line. Hind wing pale fuscous, underside with cell-spot and traces of postmedial line.

Hab Sikhim (Knyvett) Evp 40 millim Type in coll Elwes

- b' (Aletta) Males with a pair of long tufts of hair from base of abdomen on underside
- 1921 Leucania distincta, Moore, P Z S 1881, p 333, pl 37, fig 4, C & S no 1705
 Aletia exanthemata, Moore, P Z S 1888, p 410, Butl Ill Het vii, pl 126, fig 6

Head and thorax reddish yellow, irrorated with black specks, collar with a dark line, abdomen pale with a reddish tinge, and blackish dorsal spot on first segment, the tufts on underside black in male. Fore wing bright yellow, irrorated and suffused with rufous and a few black scales, indistinct ante- and postmedial curved lines, orbicular and reniform stigmata yellow and fairly well-marked, a slight white streak on median nervure at end of cell, a slight dark apical streak, a marginal series of black specks. Hind wing pale, suffused with fuscous. Underside pale with pinkish suffusion, a marginal series of specks, fore wing with postmedial spot on costa, hind wing with cell-spot and postmedial series of specks.

Hab Dharmsála, Sikhim Erp 38 millim

1922 Leucama Obscura, Moore, Lep Ath p 97, C & S no 1706
Alctia rudis, Moore, P Z S 1888, p 411, Butl Ill Het vii,
pl 126, figs 7, 8, C & S no 1708

Head, thorax, and abdomen dull blick-led, irrorated with fuscous, the anal tutt ochreous, the tufts on underside black in male. Fore wing dull brick-red, ilrorated with fuscous, a white speck on a blackish spot at end of cell, sometimes almost

obsolete; traces of a postmedial series of specks and apical streak, veins of outer area slightly tinged with white. Hind wing pale fuscous, palest at base. Underside of hind wing with cell-spot and postmedial series of specks.

Hab Simla, Dharmsála, Sikhim, Ceylon; Nágas, E Pegu

Exp, 3 40, ♀ 44 millim

1923, Leucania corrugata, n sp

Q. Brownish grey Fore wing slightly irrorated with dark scales, an antemedial series of black specks, a pure white spot at lower angle of cell, with an indistinct ochreous spot above it on a reddish patch, a crenulate postmedial line Hind wing suffused with fuscous; the cilia whitish Underside whitish, irrorated with dark scales

Hab Simla (Harford) Exp 40 millim Type in B M

1924 Leucama reversa, Moore, Lep Ceyl m, p 6, pl. 144, fig 5, C & S no 1707

Head and thorax pale brown; abdomen pale Fore wing grey-brown, slightly suffused with red-brown; an antemedial outwardly oblique waved dark line, orbicular and reniform stigmata pale and fairly prominent, a curved lumulate postmedial line, a marginal series of specks. Hind wing pale suffused with fuscous on outer area. Underside with postmedial black costal spot to fore wing, both wings with lumulate postmedial line and marginal series of specks.

Hao Simla, Sikhim, Ganjam, Nilgiris; Ceylon, E Pegu

Exp, & 30, 9 38 millim

- 1925 Leucania fasciata, Moore, P Z S 1881, p 334, pl 37, fig 12,
 C & S no 1700
 Borolia furcifera, Moore, Lep Ath p 98, pl 4, fig 6, C & S no 1701
- Q Pale reddish brown Fore wing with some reddish suffusion along median nervure, and a short dark streak from the base below it, traces of an antemedial and a more pronounced curved double series of postmedial specks, faint traces of pale orbicular and remiform stigmata. a marginal series of specks. Hind wing dark fuscous, underside with cell-spot and postmedial line.

Hab. Sikhim Eap 40 millim

d Fore wing with the ground-colour brown, reniform and orbicular stigmata absent

1926 Leucania rufula, n sp

Dark red-brown; fore wing with the veins pale-streaked; an indistinct curved postmedial series of specks, an obscure apical streak; hind wing fuscous

Hab Shillong Exp 37 millim Type in B M

1927 Leucania nigrofasciata, n sp

3 Pale brown Fore wing with a prominent black streak from base below median nervure, the veins pale, dark streaks in the interspaces towards outer margin, costa grey, speckled with black Hind wing fuscous Underside with the fore wing and costa of hind wing brown

Hab Kúlú Evp 40 millim Type in coll Elwes

- e Fore wing with the ground-colour violaceous or rosy grey a' For e wing with vein 1 b not clothed with long scales on underside in male
- 1928 Leucania albicosta, Moore, P Z S 1881, p 338, pl 37, fig 10, C & S no 1658 Leucania nigrilineosa, Moore, Lep Ath p 103, C & S no 1683 Leucania micacea, Hmpsn Ill Het vui, p 67, pl 144, fig 8 Leucania duplicata, Butl Ill Het vii, p 8 Leucania prominens, Moore, PZ S 1881, p 339 (nec Wlh), C & S no 1688 Leucania albivenata, Swinh Trans Ent Soc 1890, p 217 Leucama bifasciata, Moore, P Z S 1888, p 410, Butl Ill Het vn, p 51, pl 126, fig 13

Differs from abdominalis in the head, thorax, and fore wing being of a violaceous grey or in the form duplicatu=prominens=albivenata with a rosy tinge instead of violaceous, bifasciata also has a rosy tinge, and has the basal, costal, and inner area of fore wing whitish, the apical fascia obscure, thorax whiter

The Nilgiri race micacea (28 inillim) is smaller Some specimens have a cell-spot and postmedial series of specks to hind wing One specimen from the Nágas has some rufous in cell, and another

has the white streak on median nervure short

Hab Dharmsála, Sikhim, Khásis, Nágas, Nilgiris, Bernardmyo Evp 28-39 millim

1929 Leucania curvilinea, Hmpsn Ill Het viii, p 67, pl 144, fig 3

Differs from albicosta in having no oblique fascia from the apex of fore wing Underside immaculate Hab Nilgiris Erp 30-36 millim

1930 Leucania venalba, Moore, P Z S 1867, p 48, C & S no 1698 Leucania lineatipes, Moore, P Z S 1881, p 335, C & S no 1679

Differs from albicosta in the fore wing being less produced at apex, the costa and veins less prominently pale, abdomen and hind wing almost pure white, a marginal series of black specks Underside immaculate except for a marginal series of minute specks to each wing

Hab Dharmsála, Khásis, Ceylon Exp 34 millim

- 1931 Leucania polemusa, Swinh P Z S 1885, p 447, pl 27, fig 1, C & S no 1686
- d. Differs from albicosta in the fore wing having a black streak from the base below median nervure, the white streak on median nervure shorter, a curved postmedial series of specks, the apical oblique streak obsolete. Hind wing pure white and semihyaline, with a marginal series of black specks. Underside immaculate Hab Poona Exp. 27 millim
- 1932 Leucania uniformis, Moore, P Z S 1881, p 339, C & S no 1697
- Q Head and thorax violaceous grey Fore wing violaceous grey, the outer area pinkish, the veins and interspaces slightly streaked with white, especially from end of cell to apex, traces of a postmedial series of specks Hind wing fuscous grey

 Hab NW Himalayas Exp 34 millim.
 - b' Underside of vein 1 b of fore wing in male clothed with long ochreous scales
- 1938 Leucania tangala, Feld Reis Nov pl 109, fig 12, C & S no 1695 Leucania mediofusca, Hmpsn Ill Het viii, p 68, pl 144, fig 9
- d Differs from curvilinea in the apex of the fore wing being rounded, no marginal series of specks. Abdomen, hind wing, and underside uniform yellowish white.

 Hab Nilgiris Exp 34 millim
- f Fore wing with a broad dark fascia from base to outer margin, or the whole wing except costal area dark
- 1934 Leucania irrorața, Moore, P Z S 1881, p 341, C & S
 no 1714
 Axylia fasciata, Moore, P Z S 1881, p 341, id Lep Ceyl III,
 pl 144, fig 6, C & S no 1712 (præocc)
 Axylia albivena, Moore, P Z S 1881, p 342, C & S no 1711

Ochreous white, collar fringed with fuscous Fore wing with a fuscous fascia from the base along median nervure to outer margin, below which is a black streak at base, two black spots at middle of cell and one at lower angle, a double postmedial and single marginal series of dark specks, veins of outer area slightly paler. Hind wing white, with marginal series of specks

Some specimens have a black streak below base of median nervure and fuscous subapical triangular patch on outer margin,

the cilia fuscous

Hab Kúlú, Punjab, Cevlon Enp 30 millim

1935 Leucania bifascia, Hmpsn Ill Het ix, p 91, pl 161, fig 6

Whitish with a slight pink tinge, thorax black-brown, fore wing with a black-brown fascia from base, becoming very broad in and beyond the end of cell, a white speck at lower angle of cell, postmedial and marginal series of specks, veins rather pale Hind wing pinkish fuscous

 \check{Hab} Ceylon Evp 31 millim

1936 Leucania proleuca

Avylia albicosta, *Hmpsn Ill Het* viii, p 70, pl 144, fig 20 (præocc)

Markings as in bifascia, from which it differs in not having the pink tinge, the head and abdomen blackish, the fore wing wholly blackish except the white costal area and some rufous on marginal area

Hab Nilgiris, Travancore Eip 34 millim

- 1937. Leucania irregularis, Wik Cat xi, p 712, C & S no 1721 Axylia abstracta, Swinh Trans Ent Soc 1890, p 221, pl vii, fig 13
- d Brownish ochreous Fore wing with a dark brown trangular patch occupying the area between lower angle of cell, apex, and outer angle, fine chocolate streaks above and below median nervure and towards the apex, a white spot at lower angle of cell Hind wing white, the margin suffused with brown Underside immaculate

Hab Moulmein, Bhámo Erp 30 millim

Genus FLOCCIFERA, nov

Type, F erigida, Swinh

Range Burma

Eyes naked and without lashes, proboscis fully developed, palpi upturned and smoothly scaled, reaching vertex of head, antennæ of male minutely ciliated, tibiæ without spines, thorax and abdomen without tufts, a pair of tufts of long hair from base of abdomen below

1938 Floccifera erigida, Swinh Trans Ent Soc 1890, p 221

Pale red-brown Fore wing with indistinct subbasal and antemedial waved lines, a black speck at middle of cell, ome specks on discocellulars traces of a narrow diffused medial band angled at lower end of cell, an indistinct postmedial slightly waved line with a series of specks beyond it an irregularly waved submarginal line Hind wing pale, the veins and margins suffused with reddish brown, underside with cell-spot and postmedial series of specks

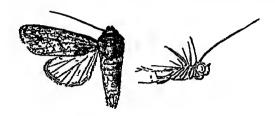


Fig 150 -Floccifera erigida, &

Hab Thyetmyo, Burma Eap 44 millim

Genus ARCILASISA

Arcılasısa, Wilk Cat xxxii, p 470 (1865) Tıracola, Moore, P Z S 1881, p 351

Type, A sobria, Wlk

Range Throughout India and Ceylon, Australia.

Eyes minutely pubescent, proboscis fully developed, palpi obliquely porrect, with somewhat long hair below, thorax and abdomen without tufts, legs without spines

SECT I (Arcilasisa) Antennæ fasciculated in male, the cilia of fore wing slightly crenulate

1939 Arcılasısa sobria, Will Cat xxxii, p 470, C & S no 1699

Uniform pale grey-brown, fore wing irrorated with dark scales Underside of hind wing with a black cell-spot. Hab Kúlú, Sikhim, S India Exp 76 millim

SECT II (Tiracola) Antennæ minutely ciliated in male, fore wing with the cilia strongly toothed

1940 Arcilasisa plagiata, Wik Cat xi, p 740, Moore, Lep Ceyl iii, pl 148, figs 1, 1a (larva), C & S no 1996
Agrotis plagifera, Wik Cat xi, p 741
Agrotis spectabilis, Wik Cat xixii, p 704

Pale grey-brown, abdomen fuscous Fore wing often much suffused with red-brown and irrorated with dark brown, an indistinct waved antemedial line, often almost obsolete, the orbicular obsolete, the reniform almost obsolete, ochreous or fuscous, sometimes on a dark patch, traces of a postmedial curved series of black specks, a submarginal doubly curved ochreous line, a marginal series of black specks. Hind wing fuscous, the cilia whitish

Larva dull violet-brown, with a few fine dorsal hairs, a few scattered grey dots and a sublateral pale olivaceous band from fourth somite, head and legs violet-grey, the former small, anal somite conical Pupa dark red Food-plant Emilia

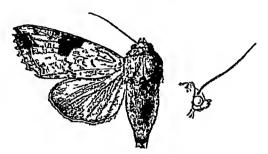


Fig 151 —Arcilasisa plagiata, 🔾 🗼

Hab Sikhim, S India, Ceylon, Borneo, Java Exp 44-60 millim

Genus AUCHMIS

Auchmis, Hubn Verz p 243 (1818) Cloantha, Bdv, Guen Ann Soc Ent Fr vin, p 509 (1839)

Type, A polyodon, Clerck, from Europe

Range N America, Europe, S Africa, Amur, Japan,

throughout India and Ceylon

Eyes naked and without lashes, proboscis fully developed Palpi porrect, the 2nd joint evenly scaled, the 3rd prominent, antennæ ciliated in male. Thorax without tufts, abdomen with small dorsal tufts on proximal segments, mid tibiæ very rarely spined. Wings with the cilia crenulate, hind wing with vein 5 obsolescent.

1941 Auchmis intermedia, Biem Lep Ost-Sib p 53
Auchmis sikhimensis, Moore, P Z S 1867, p 49, pl 6, fig 15,
C & S no 1652

Head and thorax whitish, marked with red-brown and dark



Fig 152 -Auchmis informedia, of 1

brown, abdomen pale, with a pinkish ochreous tinge. Fore wing whitish, costal area suffused with brown and pinkish, cell with fine dark streaks in it, a prominent black fascia below the cell and

another above inner margin, the inner area and that surrounding the lower part of the reniform, which is white and ochreous, suftused with chestnut and olive browns, some black streaks on the oblique apical fascia, and some on outer margin below the middle, cilia chestnut, intersected by pale teeth. Hind wing white, the veins and outer area suffused with fuscous

Hab Amu, Japan, throughout India and Ceylon Eng. 38

mıllım

*1942 Auchmis? cashmirensis, Moore, P Z S 1881, p 358, C & S no 1821

Pale ochreous, palpi and legs marked with black. Fore wing with the base speckled with black, and with a black streak above inner margin, a medial ochreous band, boidered by indistinct sinuous double black lines, the oibicular, reniform, and clavitorm blackish, with ochreous edges, some dentate discal black marks, a patch above outer angle and marginal series of black and white specks. Hind wing pale fuscous, the outer area darker, with cienulate marginal line.

Hab Kashmir Erp 32 millim

Genus NONAGRIA

Nonagria, Ochs Eur Schmett iv, p 82 (1816) Microsemyra, Butl P Z S 1883, p 155

Type, N dissoluta, Tr, from Europe

Range Palæarctic region and throughout India, Ceylon, and Burma

Eyes naked and without lashes, proboscisthin Palpi obliquely porrect, the 2nd joint evenly scaled, the 3rd prominent, thorax and abdomen without tufts, tibiæ without spines Wings with the cilia not crenulate, fore wing with the apex somewhat acute, hind wing with veins 6 and 7 stalked or from cell

SECT I Hind wing with veins 3 and 4 from the cell

A Antennæ of male ciliated, of female simple

1943 Nonagria inferens, Wlk Cat ix, p 105, Moore, Lep Ceyl iii, pl 145, fig 3, C & S no 1654



Fig 153 Nonagria inferens, 3 pl 145, fig 3, C & S no 1654
Leucama proscripta, Wih Cat 11,
p 106, C & S no 1655
Sesamia fraterna, Moore, Lep Ath
p 103, C & S no 1653

Ochieous Fore wing with a redbrown suffusion along median nervure and veins 2 to 5, a marginal dark line, cilia paler Hind wing white

Hab Sind, Bombay, Mhow, Ceylon Burma, Flores Exp 28 inillim

- 1944 Nonagria confusa, Wik Cat ix, p 105, Moore, Lep Ceyl iii, pl 145, fig 4, C & S no 1709
- d Uniform brownish ochreous, fore wing in some specimens slightly tinged with pinkish and with faint traces of postmedial specks, abdomen and hind wing almost pure white

Hab Ceylon Erp 34 millim

1945 Nonagria robusta, n sp

d Head and thorax pale red-brown, palpi fuscous abdomen fuscous, the anal tuft ochreous. Fore wing pale red-brown, a dark streak from base below median nervure, a somewhat indistinct highly waved antemedial line, the orbicular and reniform with slight black outlines, the latter with a black spot on its outer edge, the median nervure and veins 3 and 4 grey, a lumilate postmedial line with black points on the veins, outer area darker, ending obliquely below the apex. Hind wing dark fuscous, cilia rufous, underside with cell-spot and postmedial line.

Hab Sikhim Erp 52 millim Type in coll Elwes

1946 Nonagria submarginalis, *Hmpsn Ill Het* viu, p 60, pl 141, fig 5

d Yellowish fuscous-brown Fore wing with some dark scales at end of cell, a pale submarginal line from below apex to inner margin, with black suffusion on its inner side, a marginal series of black specks Hind wing dark fuscous, the cilia pale

Hab Nilgiris Exp 30 millim

B Antennæ of female serrate

1947 Nonagria fuscovirens, n sp

Q Head and thorax bright green, abdomen whitish, with slight green suffusion. Fore wing bright green. Hind wing pale fuscous, the outer area pale green. Underside with the disk of fore wing suffused with fuscous.

Hab Kashmir (Leech) Enp 42 millim Type in coll Leech

C Antennæ of male bipectinate with long branches, of female with short branches

1948 Nonagria chloroptera, n sp

Differs from fuscovinens in having no fuscous on hind wing or underside of fore wing

Hab Kashrır (Leech) Erp 52 millim Type in coll Leech

SECT II Hind wing with veins 3 and 4 stalked

A Antennæ of male ciliated

- 1949 Nonagria conspersa, *Moore*, *P Z S* 1881, p 340, *C & S* no 1710
- Q Head, thorax, and fore wing pale ochreous, uniformly irrorated with rufous scales, abdomen and hind wing pure white Hab Calcutta Exp 44 millim

B. (Microsemyra) Antennæ of male serrate

1950 Nonagria pallida, Butl P Z S 1883, p 155, C & S no 865
Ochreous white Fore wing slightly irrorated with fuscous
Hind wing pure white

Hab Mhow Exp 22 millim

Genus ACRAPEX, nov.

Type, A prisca, Wlk Range Nilgiris, Ceylon

Differs from Nonagria in being more slenderly built, in the fore wing being more produced at apex, vein 7 from or from just beyond end of areole, the hind wing with the outer margin excurved at veins 2 to 4, veins 6, 7 and 3, 4 stalked, vein 5 bent at origin

1951 Acrapex prisca, Wik Cat xxxv, p 1953, C & S no 1687 Senta cramboides, Moore, Lep Ceyl ni, p 12, pl 145, fig 6, C & S no 1718



Fig 154—Acropex prisca, 3 }

Brownish ochreous, fore wing with the veins outlined with redbrown, a postmedial and slight marginal series of specks, a slight apical streak. Hind wing ochreous white, slightly suffused with fuscous towards outer margin.

Hab Ceylon Eap, 3 34, ♀ 38 millim

- 1952 Acrapex hamulifera, Hmpsn Ill Het ix, p 91, pl 161, fig 5
- d Brownish grey, head and collar with an ochreous tinge, fore wing slightly suffused with ochreous and more so with black, a white hook-shaped mark on median nervure, a pale oblique apical streak, a series of black specks on outer margin. Hind wing pale fuscous. Underside of hind wing with cell-spot and postmedial curved line.

Hab Ceylon Eap 34 millim

1953 Acrapex leucophlebia, n sp

Differs from hamulifera in having no white mark on median nervure of fore wing, the veins much more prominently pale, the apical streak less prominent

Hab Nilgiris Exp 28-31 millim Type in B M

Genus ACUTIPENNA, nov

Type, A acuminata, Hmpsn

Range Nilgiris

Differs from Acrapex in the apex of the fore wing being very much produced, vein 7 anastomosing strongly with 8 and 9 to beyond the areole, hind wing with veins 6 and 7 on a long stalk, vein 5 more developed and from near lower angle of cell

1954 Acutipenna acuminata, n sp

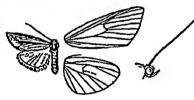


Fig 155 Acutipenna acuminata, 3

Head and thorax reddish and dark brown, abdomen whitish Fore wing reddish brown, with a prominent white fascia from the base through the cell to the apex and a blackish fascia below it, veins pale streaked Hind wing white

Hab Nilgiris Exp 26 millm Type in B M

Genus PHYCIDIMORPHA.

Phycidimorpha, Hmpsn Ill Het ix, p 103 (1893)

Type, P rosea, Hmpsn

Range Ceylon

Eves naked and without lashes, palpi porrect and reaching beyond the frons, antennæ with long bristles and cilia, thorax and abdomen without tufts, tibiæ naked and without spines Fore wing very long and narrow, the outer margin very oblique, vein 7 given off after the areole Hind wing with veins 3 and 4 on a short stalk, 5 straight and from below centre of discocellular

1955 Phycidimorpha rosea, Hmpsn Ill Het ix, p 104, pl 163,

d Head and thorax ochreous white, with slight pink suffusion, abdomen pale ochreous Fore wing pale ochreous, almost uniformly suffused with pink, which is rather deepest below the costa, the costa white. Hind wing whitish, slightly suffused with fuscous towards outer margin

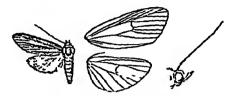


Fig 156 -Phycidimorpha rosea, & 1

Hab Ceylon Erp 24 millim

Genus PHYCIDOPSIS

Phycidopsia, Hmpsn Ill Het. ix, p 91 (1893)

Type, P albovittata, Hmpsn

Range Ceylon

Differs from Nonagria in the antennæ of the male being heavily bipectinated Fore wing with the costa arched, the apex quadrate, vein 6 given off after the end of cell

1956 Phycidopsis albovittata, Hmpsn Ill Het ix, p 91, pl 161, fig 13

d Head and thorax fuscous, collar and vertex of thorax reddish. Fore wing pale red-brown, with the costal half suffused

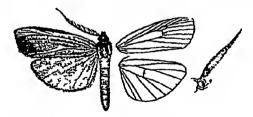


Fig 157 —Phycidopsis albovittata, d. }

with white, a dark brown fascia on the costs from the middle to near apex. Hind wing pale fuscous.

Hab Ceylon Exp 42 millim

Genus LEOCYMA

Leocyma, Guen Noct 11, p 212 (1852) Chasmina, Will Cat 1x, p 146 (1856) Chnophlebia, Hmpsn Ill Het 1x, p 92 (1893)

Type, L tibialis, Fabr., from Formosa, Australia, and the Pacific Groups

Range Africa; Japan; China, Formosa, India, Ceylon, and

Burma, Australia and the Pacific groups

Eyes naked and without lashes, proboscis fully developed, palpi upturned, reaching vertex of head, and smoothly scaled, antennæ simple in male, thorax and abdomen smoothly scaled and without tufts, tibiæ without spines. Fore wing with the cilia non-crenulate

- SECT I (Clinophlebia) Fore wing of male quadrate, the costa somewhat excised, the costal neuration slightly distorted
- 1957 Leocyma sericea, Hmpsn Ill Het 1x, p 92, pl 161, fig 7 Chasmina dianæ, C S no 1783 (nec Guen)
 - J Pure shining white, the palpi and antennæ ochreous, fore

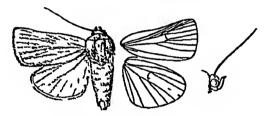


Fig 158 —Leocyma sericea, d 1

tibiæ and tarsi orange spotted with black, mid tibiæ orange above

Hab Ceylon Exp 40 millim

SECT II (Leocyma) Fore wing of normal shape, with the costal neuration not distorted

1958 Leocyma cygnus, Will Cat ix, p 147, Butl Ill Het vi, pl 110, fig 3, C & S no 1782

Pure shining white, frons, palpi, and antennæ ochreous Hab Throughout India Eap 36-44 millim

- 1959 Leocyma judicata, Wll. Cat xv, p 1760, C & S no 1838 Chasmina linea, Hmpsn Ill Het viii, p 73, pl 145, fig 3
- 3 Differs from cygnus in the palpi and frons being white, tarsi spotted with black. Fore wing with three black specks on the costa, a slightly curved postmedial fuscous line, some submarginal black scales.

Hab "N India", Nilgiis Exp 28 millim.

- 960 Leocyma biplaga, Wil. Cat xii, p 795
 Acontia bimacula, Wil. Cat xii, p 796
 Chasmina stigmata, Hmpsn Ill Het viii, p 73, pl 145, fig 10
- σ Differs from cygnus in the palpi and from being white vol. II

Fore wing with a patch on the costa before the apex which is prominent and black in the Chinese and Sikhim form, indistinct and brownish in stigmata from the Nilgiris, traces of postmedial and submarginal lines, a few submarginal black scales towards the apex, some specimens have three black specks on the

Hab N China, Sikhim, Nilgiris Eap 30 millim

SECT III Fore wing narrower and more produced at apex

1961 Leocyma maculata, n sp

Head and thorax brownish white, palpi black at sides, abdomen fuscous except at base Fore wing brownish white, indistinct double ante- and postmedial and single medial waved lines, the orbicular a fawn-coloured speck with white outline, a large fawn-coloured, somewhat mregular patch with white outline in and beyond the end of cell, a black speck at apex, another subapical and a marginal series increasing in size towards outer angle Hind wing semilyaline white, the inner area clothed with fuscous hair, traces of a cell-spot and postmedial line, a marginal series of black specks

Hab E Pegu, 5000 feet (Doherty) Erp 32 millim Type in

coll Elwes

Genus APSARASA

Apsarasa, Moore, P Z S 1867, p 665

Type, A radians, Westw

Range Sikhim, Assam, Andamans
Eyes naked and without lashes, proboscis fully developed, palpi uptuined, reaching vertex of head, the second joint smoothly scaled and thickened, antennæ simple, thorax and abdomen without tufts, tibiæ without spines Fore wing with the cilia not crenulate, the apex rounded, the inner margin lobed and forming with the outer margin an almost continuous curve

1962 Apsarasa radians, Westw Cab Or Ent p 58, pl 28, fig 4 Apsarasa figurata, Moore, P Z S 1877, p 604, C & S no 1781

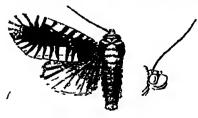


Fig 159 Apsarasa radians, 3

d Head and thorax blue-black, a pale yellow patch on vertex of head and five yellow bars on the thorax, abdomen black, with yellow dorsal specks on the proximal segments, the anal tuft yellow Fore wing blue-black, with pale yellow subtriangular patches set all round the costal, outer, and inner margins, some

small yellow spots in the cell and blue-grey spots beyond it Hind

wing black with the outer area white, its inner edge irregular and the black area projecting into it at apex and anal angle

2 with the anal tuft black, hind wing with the white on outer

area much reduced

The form figurata from the Andamans has the markings of the fore wing almost white and a small yellow spot on second joint of palpi

Hab Sikhim, Assam, Andamans Evp 50 millim

Subfamily ACONTIINÆ

Eyes naked and without lashes, proboscis fully developed, tibiæ without spines Hind wing with vein 5 slender, but stronger than in the Trifinæ, depressed at origin, the outer margin not produced at its termination

Almost all the species are of small size and live amongst low

herbage

process

Larvæ usually with the four pairs of abdominal prolegs fully developed, but sometimes with but three or two pairs

Key to the Genera

A Abdomen with dorsal tufts a Fore wing with vein 8 given off from 7 and anastomosing with 9 to form an a' Metathorax with paired tufts
 b' Metathorax with a sharp crest **DIPHTHERA**, р 293 2 Perciana, p 295 c' Metathorax without tufts a^2 Hind wing with veins 3 and 4 from cell a³ Fore wing with the apex rectangular a Abdomen longer than the hind wing, the legs hairy 3 Bryophila, p 296 b⁴ Abdomen shorter than the hind wing, the legs smooth 4 Erastria, p 300 b3 Fore wing with the apex acute 25 ZAGIRA, p 344 b^2 Hind wing with veins 3 and 4 6 Hyelopsis, p 304 stalked b Fore wing with veins 7, 8, 9 stalked c Fore wing with veins 7, 8, 9, 10 stalked Toxophlers, p 306 5 ERASTRIOIDES, p 303 B Abdomen without dorsal tufts a Fore wing with vein 8 given off from 7 and anatomosing with 9 to form the areole a' Frons with a trilobate corneous

10 MEGALODFS, p 309

T 2

b' Frons without a trilobate process a² Palpi uptuined as Fore wing short and broad a4 Hand wing with veins 3 and 4 stalked at Fore wing with the apex i ectangulai 8 Hiela, p 307 bo Fore wing with the aper papanor 27 ORUZA, p 348 b4 Hind wing with veins 3 and 4 from cell or on a very short stalk at Palpi short, not reaching above vertex of head as Fore wing with the cilia non-crenulate, the outer margin evenly curved 12 XANTHOPTFRA, p 316 be Fore wing with the ciha crenulate, the outer margin oblique towards outer angle 13 Cosviia, p 321 b5 Palpi long and reaching above verter of head as Fore wing of nearly even width throughout, the aper 10unded 16 SWINHOEA, p 324 be Fore wing triangulai, the aper nearly rectangular 15 Marivatha, p 324 Fore wing more produced and acute at apex 9 Micardia, p 309 b2 Palpi poisect, from with a sounded corneous projection 11 TARACHE, p 310 Palpi poirect and triangularly scaled 26 CORGATHA, p 347 b Fore wing with veins 7, 8 and 9, 10 stalked 14 Acontia, p 322 c Fore wing with veins 8, 9, 10 stalked a' Fore wing with rein 6 present a2 Fore wing with the outer minigin somewhat erect, rarely excised below the apex, which is rectaugulai 17 Metachrostis, p 325 Fore wing with the outer margin obliquely curved, the aper pro-23 Eublinna, p 338 duced to a slight point of lobed b' Fore wing with your 6 absent 21 CINGAILSA, p 336 d Fore wing with veins 7, 8, 9 stalked a Fore wing with veins 10 and 11 from cell Hind wing with the costa excised 24 Troctofter, p 344 b2 Hund wing with the costa not excised. a' No frontal tuft, the palps up-18 NARANGA, p 333 bo A sharp frontal tuft, the palpi 19 RIVULA, p 334 poirect

29 Micræschus, p 351

b' Fore wing with veins 10 and 11
stalked 20 TATHODELTA, p 336

e Fore wing with veins 7, 8, 9, 10 stalked
a' Hind wing with veins 3 and 4
from cell
a² Palpi not reaching vertex of head
b' Palpi reaching far above vertex of head
b' Hind wing with veins 3 and 4
stalked, palpi slender, oblique, and

Genus DIPHTHERA

Diphtera, Ochs Eu. Schmett iv, p 63 (1816) Canna, Wlh Cat xxiii, p 790 (1865)

hardly reaching vertex of head

Type, D or ion, Linn, from Europe

Range Nearctic and Palæaictic Regions, Himalayas Naga Hills Palpi obliquely porrect, the second joint clothed with long hair, the third short, antennæ minutely chiated, thorax without a tuft behind the collar, the metathoracic tufts large, abdomen dorsally tufted

Larvæ with tufts of hair and forming a cocoon, 4 pairs of abdominal prolegs

SECT I (Canna) Patagia produced to long upturned tufts, abdomen with one large dorsal tuft

1963 Diphthera pulchipicta, Will Cat Arm, p 790, Moore, P Z S 1867, pl 6, fig 10 C & S no 1820

Head and collar bulliant malachite-green, thorax ochreous, with the patagra and metathoracic tufts chestnut, abdomen ochreous white, the dorsal tuft pale. Fore wing malachite-green. A subbasal chestnut line conjoined to a fascia along inner margin as far as the obliquely angled medial band, these chestnut markings

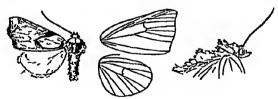


Fig 160 -Diphthera pulchripicta, & }

being bordered by white lines, a darker shade from apex to angle of medial band, a marginal chestnut band whitish towards apex and indented at centre and outer angle. Hind wing ochreous white, with some fusious submarginal suffusion towards apex

Hab Sikhim Erp 36 millim

294 NOCTUID E

1964 Diphthera malachitis, Oberth Et Ent v, p 80, pl 111, fig 9 Canna splendens, Moore, P Z S 1888, p 412, Butl Ill Het vii, p 59, pl 128, fig 4

Differs from pulchi ipicta in the white subbasal line of fore wing having green inside it instead of chestnut, a black and white lunule on base of inner margin. the fascia on inner margin not extending to base, no chestnut marginal band, the apical part of margin whitish, with a black white-centred spot at its lower extremity, a white patch with black white-centred spot on it above outer angle—Hind wing with a diffused submarginal fuscous band—Hab—Askold—Island, near Vladivostok, Dharmsala, Sikhim—Exp—40 millim

1965 Diphthera prasinaria, W7k Cat ARRIN, p 615, C & S no 1763

Head and thorax emerald-green, pulpi black tipped with white, thoracic tufts black-tipped, abdomen white tinged with fuscous, the dorsal tuft black. Fore wing emerald-green, a black suffused basal patch with irregularly waved black and white edge, a broad medial black suffused band with very irregularly waved black and white edges, the remirorm represented by a diffused white patch, an irregularly waved submarginal white line with some black on its inner edge, some black specks on costa towards apex, a black spot on outer margin below apex, a series of marginal black specks. Hind wing white, a fuscous band from apex to vein 3, the cilia green. Underside whitish, with prominent black bands from costa near apex to vein 3 on each wing

Hab Sikhim Erp 38 millim

SECT II (Diphthera) Patagra not produced, abdomen with small dorsal tufts on proximal segments

1966 Diphthera vigens, 1171. Cat vxxxx, p 616, C & S no 1764

Head and thorax deep emerald-green, palpi black, thoracic tufts black-tipped, abdomen ochreous suffused with black wing deep emerald-green, with a black striga from costa near base, a streak below median nervure, an antemedial irregularly waved black white-edged line, orbicular and remform defined by black lines and incomplete above and below, a black band between them from costa to median nervure, claviform represented by a white streak with black specks at each end of it, a postmedial very irregularly waved black white-edged line with a broad black shade beyond it, some black specks on costa towards apex, a series of Hind wing pale green, with an indistinct marginal specks irregularly waved postmedial line and diffused fuscous submarginal Underside green, with diffused medial and submarginal black bands from costa of each wing to vein 4, hind wing with a postmedial line

Hab Kúlú, Sikhim, Nágas Eap 40 millim

1967 Diphthera pallida, Moore, P Z S 1867, p 46, pl 6, fig 6, C & S no 1762
 Diphtera fasciata, Moore, P Z S 1888, p 408, Butl Ill Het vii, pl 122, fig 1

Differs from vigens in being pale silvery green. Fore wing with the black spot beyond the white claviform streak large, the shade beyond the postmedial line slight, the series of specks submarginal instead of marginal, cilia chequered black and green. Hind wing greenish white, with traces of a cell-spot. Underside greenish white, with two short black bands from costa of fore wing and one medial short band from costa of hind wing.

The form fasciata has the basal markings of fore wing almost obsolete, the antemedial line obsolescent except the recurved portion on inner margin, the orbicular, remitorm, and claviform obsolete, the postmedial line much less prominent with no submarginal specks beyond it, cilia only tipped with black at

emarginations

Hab Dharmsála, Sikhim Evp 46 millim

1968. Diphthera discibiunnea, *Moore, P Z S* 1867, p 46, pl 6, fig 14, *C & S* no 1760

Head and thorax bright green slightly tinged with black, palpi black at sides, abdomen very pale fuscous. Fore wing bright green, with a subbasal black line expanding into a large patch below median nervure, some detached black spots representing the antemedial line, orbicular and reniform almost obsolete, with a blackish band between them from costa to median nervure, a short broad blackish band on outer edge of reniform, a broad blackish waved postmedial band, a series of blackish marginal lunules. Hind wing fuscous white, with indistinct postmedial waved line and broad diffused fuscous submarginal band. Underside with postmedial line and diffused submarginal band to both wings, hind wing with a cell-spot.

Hab Sikhim, Nágas Eip, & 36, 2 42 millim

Genus PERCIANA

Perciana, Wik Cat xxxiii, p 812 (1865)

Type P marmorea, Wlk

Range Punjab, Sikhim, Manipur

Palpi obliquely upturned, the 2nd joint reaching vertex of head, the 3rd long and naked, antennæ with fascicles of cilia in male, a sharp crest on metathorax, the patagia with long upturned scales from their ends, abdomen with a very long dorsal tuft on 2nd segment and small tuft on 3rd, a flattened anal tuft, tibiæ moderately hairy. Fore wing with the apex nearly rectangular, the outer margin angled at centre, veins 8 and 9 anastomosing to form the areole. Hind wing with veins 3, 4 and 6, 7 from cell.

1969. Perciana marmorea, Will Cut axam, p 813, C & S no 2223

Brownish ochieous, vertex of head white, collai fringed with black, abdomen with the dorsal tufts black. Fore wing marbled with white, brown, and black, a short basal black line, black subbasal and medial patches on inner margin, the costa speckled



Fig 161 -Perciana mas morea, &

with black, a white black-ringed spot in cell and speck at end of it, traces of a waved postmedial line with diffused white beyond it on costal and inner areas, traces of a sinuous submarginal black band with some white on it. Hind wing whitish, the outer area suffused with fuscous, a black mark above anal angle

Hab Punjab, Sikhim Eip, & 34, & 42 millim

1970 Perciana flavifusa, n sp

d Head reddish blown, thorax and abdomen grey and fuscous Fore wing grey, slightly intorated with black, the basal area suffused with pale yellow, the outer with blown, the oibicular minute, the reniform large with a line from it to inner margin, traces of a dentate submarginal line. Hind wing pale fuscous

Hab Manipur, 6000 feet (Doherty) Erp 28 millim Type in

coll Elwes

1971 Perciana viridinotata, n sp

d Head green, the palpi brown, thorax brown and ochreous, abdomen pale, the dorsal tufts green. Fore wing dark red-brown, a short subbasal bright green line, the orbicular and remform with bright green outlines and patches above them on costa, a large green patch on central inner area crossed by a short lumulate white line, a green spot on costa before apex and another at centre of outer margin, a series of white specks on costa. Hind wing pale brownish. Underside with cell-spot and curved postmedial line.

Hab Sikhim, 7000 feet (Moller) Erp 30 millim Type in

coll Elwes

Genus BRYOPHILA

Bryophila, Treuschle, Lui Schmett v, pt 1, p 57 (1825)

Type B mw alis, Forst, from Europe
Range Nearctic and Palæarctic regions, Himalayas, Khasis,
Nilgiris, Ceylon and Burma

Palpi slender and uptuined, the third joint reaching above vertex of head, antennæ minutely ciliated, thorax with slight tufts behind collar, abdomen with slight doisal tufts, and longer than the hind wing, legs hairy

Larvæ with four pairs of abdominal prolegs

1972 Bryophila literata, Moore, P Z S 1881, p 331, C & S no 1775

Head and thorax white, irrorated with black scales, abdomen fuscous white, the dorsal tufts black. Fore wing white suffused with black a waved blackish subbasal band edged by black lines



Fig 162 Bryophila literata, & 4

a broad medial blackish band narrowing to inner margin, the double waved antemedial black and white line forming its inner edge, the stigmata indistinct, with a pale round spot between the orbicular and reniform, the waved double black and white postmedial line excurved beyond the cell, a submarginal waved

line with diffused black on its inner edge, cilia chequered white and fuscous. Hind wing fuscous, with indistinct cell-spot and postmedial line cilia white, spotted with fuscous

Hab NW Himalayas Eip, ♂ 32, ♀ 36 millim

1973 Bryophila modesta, Moore, P Z S 1881, p 332, C & S

Q Differs from literata in being wholly suffused with dirty ochreous brown. Fore wing with the markings fuscous and indistinct the ante- and postmedial lines dentate. Hind wing fuscous brown, underside with the postmedial line almost obsolete. Hab Simla Exp. 30 millim

1974 Bryophila virescens, n sp

d Differs from literata in the ground-colour of the thorax and fore wing being pale blue-green, a black streak between the subbasal and antemedial lines below median nervure, a prominent submarginal series of irregularly placed black maiks

Hab Dalhousie (Harford) Evp 26 millim Type in B M

1975 Bryophila lichenea, Hmpsn Ill Het viii, p 72, pl 144, fig 12

Differs from literata in the head, thorax, and fore wing being evenly suffused with fuscous hind wing with the cilia wholly white, the broken band on underside submarginal instead of postmedial

Hab Nilgui plateau Eip 30 millim

1976 Bryophila nilgiria, *Moore*, P Z S 1881, p 332, C & S

Head white, thorax and abdomen white suffused with fuscous Fore wing white, more or less suffused with black, subbasal and antemedial waved black lines, in some specimens with blackish marks between them, the orbicular a prominent black-ringed white speck, reniform with indistinct outline, claviform a curved line, the area round the stigmata sometimes suffused with black, a postmedial waved line highly excurved beyond cell and with some more or less prominent diffused marks beyond it, some black spots on costa. Hind wing suffused with black, cilia of both wings chequered black and white. Underside of fore wing black, with a white postmedial mark on costa, hind wing white, with black postmedial line.

Hab. Nilgiri plateau. Exp 34 millim

1977 Bryophila muscosa, *Hmpsn Ill Het* viii p 72, pl 144, fig 15

Q Differs from nilgiria in the vertex of head being black, the thorax and fore wing slightly suffused with olive-green, the subbasal and antemedial lines replaced by ill-defined black patches, orbicular and reniform prominent, the latter with black centre, claviform a prominent black-ringed white spot, the postmedial line obsolescent, a prominent diffused and broken submarginal band, cilia less prominently chequered, those of hind wing fuscous Underside of both wings black with irregular patches of white

Hab Nilgiri lower slopes Exp 38 millim

1978 Bryophila postochrea, Hmpsn Ill Het 1x, p 95, pl 161, fig 8

Q Head white, palpi black at sides, thorax white, with black markings, abdomen ochreous fuscous. Fore wing white, with some black markings at base, a black band from costa to median nervure, a waved antemedial line, orbicular and reinform white with black outline, the latter formed like the letter E, a very broad blackish postmedial band extending on inner margin to the antemedial line, a double lumilate submarginal line, a prominent black mark above outer angle and less prominent marks towards apex. Hind wing ochreous suffused with fuscous; a blackish postmedial line and broad marginal band, chia white. Underside grey suffused with fuscous, fore wing with medial black spot on costa and postmedial line, hind wing with cell-spot and postmedial line.

Hab Trincomali, Ceylon Exp 28 millim

1979. Bryophila nadgani, *Hmpsn Ill Het* viii, p 87, pl 146, fig 6 Red-brown, abdomen with the dorsal tufts black Fore wing with oblique black subbasal and antemedial lines, the area between the base and the latter shaded with fuscous, the orbicular and remform large and indistinct, the latter with dark centre to lower part, a dark patch on costa above them, a waved postmedial line highly excurved beyond cell, the area beyond it suffused with fuscous an indistinct lumilate submarginal line with pale patches on it, a lumilate marginal line. Hind wing fuscous brown Underside of fore wing fuscous, the costal and outer margins grevish, with medial and postmedial marks on costa. Hind wing grevish, with cell-spot and lumilate postmedial and marginal line.

The form from the NW Himalayas is rather darker, one

specimen has a white patch below the stigmata of fore wing

Hab NW Himalayas, Nilgiris, western slopes Exp 22-28 millim

*1980 Bryophila? albistigma, Moore, P Z S 1867, p 45, C & S

Grey-green Fore wing with traces of pale-edged undulating lines, the medial area darker, with the orbicular represented by a white speck, the remiform by two, a white patch beyond the cell, submarginal and marginal series of white spots, the last centred by dark specks Hind wing pale pinkish brown, with sinuous postmedial line and diffused submarginal band

Hab "Bengal" Exp 30 millim

1981 Bryophila khasiana, n sp

Differs from nadgani in being paler and more ochreous brown, the anal tuft ochreous. Fore wing more variegated with olive and dark brown shades, with the antemedial waved line more erect, a dark patch below the stigmata, the postmedial line less excurved and indistinct, with some white beyond it near inner margin, outer margin with a black speck above outer angle. Hind wing paler fuscous

Hab Khásis (Elwes) Eip 34 millim Type in coll Elwes

1982 Bryophila albipuncta, n sp

A Head and thorax pale red-brown, abdomen darker Fore wing dark red-brown, suffused with paler red, especially on basal and medial costal areas, the transverse lines obscure, the antemedial erect and sinuous, the orbicular and reniform rufous and indistinct, claviform black, a series of minute white specks on the veins beyond the postmedial line, most prominent towards inner margin. Hind wing fuscous, underside with large black cell-spot and highly irregularly sinuous postmedial line.

Hab Sikhim (Moller) Exp 28 millim Type in coll Elwes

300 NOCTUIDE.

1983 Bryophila pallidisca, Moore, P Z S 1881, p 372, pl 37, fig 14, C & S no 1802
Erastria albiorbis, Moore, Lep Ath p 141, C & S no 1795
Erastria fusca, Moore, Lep Ath p 141, C & S no 1797
Erastria nubila, Moore, Lep Ath p 142, C & S no 1801

Red-brown Fore wing with subbasal, antemedial, postmedial, and submarginal irregularly waved, dark lines, with fuscous suffusion before the antemedial and beyond the postmedial line, orbicular and remiform large Hind wing white, with slight fuscous suffusion on outer margin

The typical form has large white patches on orbicular and lower

part of reniform

Hab Sikhim Erp 30 millim

1984 Bryophila glaucescens, Butt Ill Het vii, p 81, pl 133, fig 4 Anophia undara, Swinh Trans Ent Soc 1890, p 2J4

Dark purple-grey variegated with black Fore wing with double subbasal, antemedial, and postmedial waved black lines, the medial area dark, with a small orbicular spot and large reniform with orange spot on it, an irregularly dentate submarginal line and marginal crenulate line. Hind wing dark fuscous

Hab Dharmsála, Rangoon Esp 24 millim

1985 Bryophila glaucostigma, n sp

3 Palpi black at sides, head and thorax reddish brown, abdomen fuscous Fore wing fuscous brown, the subbasal waved line with a pale and dark patch beyond it below median nervure, the antemedial line approaching the postmedial below the cell, the orbicular and reniform pale, the submarginal line pale, with irregular dark dashes before it, a series of marginal black specks, cilia intersected by pale streaks. Hind wing pale, suffused with fuscous towards outer margin. Underside pale, both wings with crenulate postmedial line, hind wing with cell-spot.

Hab E Pegu, 5000 feet (Doherty) Erp 34 millim Type in

coll Elwes

Genus ERASTRIA

Erastria, Ochs Eur Schmett iv, p 92 (1816) Motama, Moore, Lep Ath p 110 (1882)

Type, E fasciana, Linn, from Europe Range Nearctic and Palæarctic regions, China, Himalayas,

Assam Hills; Ceylon, Java
Palpi upturned, reaching above vertex of head, the 2nd joint clothed with long han below, the 3rd prominent, antennæ minutely chiated in male, thorax roughly scaled but without tufts, abdomen with strong doisal tufts, and shorter than the hind wing

ERASTRIA 301

Fore wing with the areole long and narrow Hind wing with veins 3 and 4 from cell Legs naked

Larvæ with four pairs of abdominal prolegs

1986 Erastria stygia, Butl Ill Het in, p 20, pl 46, fig 2

Black-brown, head, thorax, and fore wing irrorated with grey scales, the last with indistinct subbasal and intemedial waved lines, the orbicular barely traceable, the reniform more prominent and with white outline, the postmedial curved and waved line indistinct from the costa to vein 2, thence white and prominent to inner margin, the submarginal irregularly waved line indistinct and with white scales on it in places, a marginal series of black spots slightly defined by white, ciha with white streaks on them below apex. Hind wing pale fuscous, the ciha whitish at tips, underside with cell-spot and waved postmedial line.

Hab Japan, Nágas, Ceylon Exp 22-28 millim

1987 Erastria larentiformis.

Enastria cidarioides, Moore, Lep Ath p 142, C & S no 1796 (præocc)

Differs from stygia in being browner, the orbicular more prominent the reniform with dark outline, the postmedial line more irregularly excurved and ochreous from the costa to vein 7,



Fig 163 —Erastria larentiformis, of 1

thence white to inner margin, the whole of the outer area white except the apical area, a black subapical mark and a spot on centre of outer area

Hab Sikhim Exp 28 millim

1988 Erastria aurata, Moore, Lep Ath p 110, pl 4, fig 10, C & S no 2064

Head, thorax, and abdomen clothed with pale red-brown and fuscous scales. Fore wing golden green, with waved subbasal, antemedial, indistinct medial, and postmedial lines, the orbicular and reniform with whitish outlines and a black patch between them extending upwards to the costa, a grey patch on inner margin between the antemedial and medial lines, some dark suffusion on apical part of outer area, an irregularly sinuous submarginal line, a marginal series of white specks. Hind wing pale, the inner

302 NOCTUID E

and outer areas suffused with fuscous, underside with speck at end of cell and dentate postmedial line, cilia of both wings pinkish Hab Sikhim Evp 30 millim

*1989 Erastiia cidarioides, Moore, Lep Ath p 110, pl 4, fig 9, C & S no 2065

Differs from larentiformis in the basal area of the fore wing being golden yellow to beyond the antemedial line, the remform and ground-colour of outer area golden yellow

Hab Sikhim Exp 28 millim

- *1990 Erastria? decorata, Mooie, Lep Ath p 110, pl 4, fig 11, C & S no 2066
- 3 Golden brown, thorax irrorated with grey, palpi and legs blackish with pale bands. Fore wing with grey specks on the costa and veins, the orbicular, reniform, and a postmedial band golden yellow, the last with sinuous dark outer edge, a jellowish submarginal line, a blackish patch in cell between the stigmata. Abdomen and hind wing dark fuscous

Hab Sikhim Eip 32 millim

1991 Erastria glaucopis, n sp

Head and collar pale reddish, thorax and abdomen grey Fore wing with the basal area reddish, the medial area fuscous, defined by waved ante- and postmedial lines, the latter excurved round the large grey remform spot, the outer area grey, with a rufous patch on apical part of costa and black spot at centre of margin. Hind wing fuscous, underside with cell-spot, crenulate postmedial line, and marginal series of specks

Hab Sikhim (Moller) Eip 24 millim Type in coll Elwes

*1992 Erastria * marginata, Moore, P Z S 1881, p 372, pl 37, fig 21, C & S no 1800

Head and thorax pale ferruginous, abdomen pale fuscous Fore wing greyish ferruginous, with a pale ferruginous band on inner margin joined by a submarginal band from below the apex with some whitish beyond it, the orbicular and remiform spots pale fuscous

Hab Sikhim Erp 32 millim.

1993 Erastria melanostigma, n sp

d Head and thorax yellowish white suffused with rufous, abdomen pale fuscous, the dorsal tufts black. Fore wing whitish, a rufous patch on inner area before the middle, a large quadrate black patch occupying the inner medial area, the orbicular and remiform represented by black specks with silvery-grey scales round

them, and with a rufous patch between them. a postmedial irregularly waved white line, the area between it and the indistinct irregular submarginal line fuscous on costal two-thirds, rufous towards inner margin. Hind wing fuscous, underside with cell-spot and postmedial line

Hab Khásis (Elwes), Java. Eip 22 millim Type in B M

Genus ERASTROIDES

Erastroides, Hmpsn Ill Het 11, p 98 (1893)

Type, E oliviaria, Hmpsn

Range Ganjam, Nilgiris, Ceylon

Differs from Elastica in the fore wing having veins 7, 8, 9, 10 stalked, there being no areole

1994 Erastroides curvifascia, Hmpsn Ill Het viii, p 76, pl 145, fig 23

5 Dull fuscous brown Fore wing with indistinct, double sub-basal and antemedial waved lines, reniform with white and black outline, the postmedial double line regular, excurved from the sub-costal to vein 2 and with a large white patch on and beyond it at inner maigin, a very indistinct irregularly waved submarginal line Hind wing dark fuscous Underside ochreous, irroiated with black, a cell-spot and indistinct waved postmedial line

Hob Ganjam, Nilgiris Exp 24 millim

1995 Erastroides oliviaria, Hmpsn Ill Het 12, p 99, pl 162, fig 23

d Head, thorax, and abdomen olive-green Fore wing whitish, much suffused with olive-green, indistinct double waved subbasal and antemedial lines, a dark patch between the almost obsolete orbicular and remform stigmata, a slightly waved and much



Fig 164 —Erastroides oliviaria, &

excurved postmedial line, with a black spot beyond it near inner margin, a white patch on outer margin below apex, a marginal series of specks. Hind wing pale fuscous, with a marginal lumulate line. Underside with black cell-spot and indistinct waved postmedial line.

Hab Ceylon Exp 22 millim

304 NOCTUIDÆ

Genus HYELOPSIS, nov.

Type, H vialis, Moore

Range Japan, China, throughout India, Ceylon, and Burma, Penang, Australia

Differs from Erastria in the fore wing being narrower, the hind

wing with yeins 3 and 4 stalked

SECT I Antennæ of male minutely ciliated

1996 Hyelopsis vialis, Moore, Lep Ath p 135; C & S no 1851

d Hend, thorax, and abdomen ochreous white, the last with two dorsal black tufts. Fore wing with the basal and costal areas ochreous white, with a slight fuscous tinge, the outer area, which extends from the apex to centre of inner margin, dark purplish fuscous and crossed by the irregularly-waved whitish postmedial line, which becomes pure white towards inner margin, a diffused dark somewhat dentate submarginal line, a marginal series of short dark strigæ. Hind wing pale fuscous. Underside fore wing fuscous, the costal and outer areas pinkish ochreous, hind wing pinkish ochreous, with cell-spot and curved postmedial line.



Fig 165 — Hyelopsis rialis, & ?

Slightly more suffused with fuscous Fore wing with the outer area pinkish fuscous in tone, two prominent white lumiles on the postmedial line above inner margin. Hind wing dark fuscous, the outer margin and cilia ochreous

Hab Dharmsala, Sikhim, Nilgiris Exp, & 20, 9 22 millim

1997 Hyelopsis signifera, Will Cat XII, p 793, Moore, Lep Ceyl
III, pl 150, fig 4, C & S no 1865
Acontia subfixa, Will Cat XXXV, p 1964

Head, thorax, and abdomen white tinged with brown Fore wing with the basal half white, irrorated with a few brown scales, some brown costal marks and a black subbasal speck, the outer half brown, the remform white, with two black specks on it and a black spot beyond it, postmedial white patches on the costal and inner areas, traversed by the postmedial line, which is excurved round end of cell, outer area with the veins and marginal line rufous, an indistinct waved submarginal white line with some black streaks before it. Hind wing white tinged with fuscous Underside with cell-spot and waved postmedial line.

Hab Japan, China, throughout India, Ceylon, and Burma,

Andamans, Penang, Australia Exp 18 millim

HYELOPSIS 305

1998 Hyelopsis renalis, Moore, Lep Ath p 142, C & S no 1859

Head, thorax, and abdomen whitish, slightly suffused with reddish ochreous. Fore wing vellowish brown, the basal area whitish, with indistinct black streaks on it, and bounded by an oblique white and black line, the reniform fuscous, with a white outline in the form of a figure of 8, a white and black postmedial line angled below the costa and incurved towards inner maigin, the area beyond it whitish, with the veins from end of cell streaked with black and with diffused black dashes in the interspaces. Hind wing pale fuscous, cilia with a dark line through them. Claspers very large in male

Hab Dharmsila, Calcutta, Ceylon, Tenasserim Eip 20

mıllım

1999 Hyelopsis lativitta, Moore, P Z S 1881, p 373, id Lep Ceyl III, pl 150, fig 9, C & S no 1907
Banka basalis, Moore, Lep Ath p 143, C & S no 1855

Differs from renalis in the area beyond the postmedial line of fore wing being without the black streaks, and not whitish, except towards inner margin, a pale waved submarginal line

Hab Shanghai, Sikhim, Nilgiris, Ceylon, Borneo Evp 20

millim

2000 Hyelopsis picata, Butl Ill Het vii, p 62, pl 129, fig 2

Head and thorax white, abdomen ochreous Fore wing with the bisal half white, a black subbasal speck, with a brown mark on the costa above it, outer area yellowish brown, with a slightly dentate black line on its inner edge, a white patch from the costa, including the two black specks which represent the remiform, a postmedial black line excurved beyond the cell, outer margin with a white mark below apex, then some black marks, and a large triangular white patch at outer angle Hind wing pale or dirk fuscous

Hab Sımla, Dharmsála Erp 22 millim

2001 Hyelopsis bætica, Swinh Trans Ent Soc 1890, p 224

d Head, thorax, and abdomen otherous, suffused with fuscous Fore wing brownish otherous, a subbasal dark patch on the costa, irregularly undulating oblique ante- and postmedial white and black lines, the costal area between them fuscous, the reniform whitish, outer area purplish fuscous Hind wing fuscous

Hab Rangoon Exp 12 millim

SECT II Antennæ of male with long cilia

2002 Hyelopsis plumbata, Butl Ill Het vn, p 61, pl 129, fig 4 Marimatha freda, Swinh Trans Ent Soc 1891, p 147

Head, thorax, and abdomen olive-yellow Fore wing olive-yellow, a fuscous patch on the base of costa, an obsolescent VOL II

antemedial curved double line filled in with purplish, and with a black spot below median nervure, a slightly waved postmedial double line filled in with purple and excurved beyond cell, where it is met by a dark streak from the apex, the outer margin grey Hind wing pale fuscous Underside with prominent cell-spot and waved postmedial line

Hab NW Himalayas, Nilgiris Exp 24 millim

- 2003 Hyelopsis frausa, Swinh P Z S 1886, p 446, C & S no 1874 Naranga pallida, *Hmpsn Ill Het* 1x, p 96, pl 162, fig 13
- Differs from plumbata in being pale brownish ochreous Fore wing with white and dark marks on inner margin and costa representing the antemedial line, a few dark scales at end of cell. the postmedial curved and waved double line almost obsolete and represented by white and dark lines between vein 2 and inner margin, the outer area and cilia pale Hind wing pale fuscous

The form pallida from Ceylon is pale ochreous, with the markings

of fore wing still more reduced, the hind wing white Hab Mhow, Ceylon Exp 18 millim

- 2004 Hyelopsis umbrina, Hmpsn Ill Het viu, p 74, pl 145, fig 15
- Head and thorax reddish brown, abdomen fuscous wing red-brown, traces of a curved antemedial double line filled in with pale colour and very much excurved beyond the cell, where it is produced almost to an angle and met by an oblique dark streak from the apex Hind wing fuscous

Hab Nilgiris, W slopes Exp 24 millim

- SECT III Antennæ of male bipectinate, of female with long cilia, fore wing rather narrower, the outer margin oblique
- 2005. Hyelopsis herbaria, Swinh P Z S 1886, p 446, C & S no 1819

Ochreous white Fore wing with some fuscous black spots on the costa, a large blotch below end of cell, traces of a postmedial series of specks, some obliquely disposed dark scales from apex, outer area slightly suffused with rufous, outer margin with a few black scales, cilia with a blackish patch at centre

The types are in very bad condition, but the abdomen appears to

have been tufted

Hab Mhow Exp 18 millim

Genus TOXOPHLEPS

Toxophleps, Hmpsn Ill Het 1x, p 124 (1893)

Type, T optiva, Swinh Range NW Himalayas, Ceylon, Rangoon Palpi upturned, the 2nd joint reaching vertex of head and roughly scaled, the 3rd short, antennæ minutely ciliated in male, thorax smoothly scaled, abdomen with dorsal tufts on the proximal segments, tibiæ naked. Fore wing with the apex nearly rectangular, veins 7, 8, 9 stalked. Hind wing with veins 6, 7 stalked

SECT I Fore wing of male with the subcostal nervure very much bowed, vein 10 absent, 7, 8, 9 displaced

2006 Toxophleps optiva, Swinh Trans Ent Soc 1890, p 224, Hmpsn Ill Het 1x, pl 167, fig 26

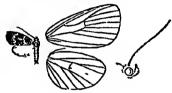


Fig 166
Toxophleps optica, of \frac{1}{4}

Dark greyish fuscous Fore wing with waved ante- and postmedial narrow erect orange bands, with black edges Hind wing pale

Hab Ceylon, Rangoon Eap
16 millim

SECT II Fore wing with the subcostal nervure and veins 7, 8, 9 not distoited in either sex, vein 10 present

2007 Toxophleps trilatalis, Wik Cat xxxiv, p 1237, C & S no 4469

Differs from optiva in the bands of the fore wing being flery orange and the base suffused with orange as far as the antemedial band

Hab Sımla, Dharmsála. Evp 16 millim

Genus HYELA

Hyela, Steph Cat Lep B: tt B M p 149 (1850) Bankia, Guen Noct ii, p 231 (1852)

Type, H uncula, Clerck, from Europe

Range Europe and throughout India, Burma

Differs from Hyelopsis in being without the dorsal tufts to abdomen

2008 Hyela obliqua, Moore, Lep Ath p 143, C & S no 1857



Fig 167 Hyela obliqua, 3 Head and abdomen ochreous, irrorated with black scales, thorax white, banded with dark cupreous brown Fore wing with the basal area white, irrorated with dark and pink scales, its outer edge oblique, the rest of the wing dark cupreous brown, with an oblique white band from the costa just beyond the middle to outer angle, the costa ochreous Hind wing dark fuscous

The Burmese form has a brown patch on the base of costa of

308 NOCTUIDÆ

fore wing, the oblique band less regular and traces of postmedial and submarginal lines

Hab Simla, Kashmir, Dharmsála, Bernardmyo Eip 22 millim

mmm

2009 Hyela erecta, Moore, P Z S 1881, p 373, C & S no 1856

Yellowish white, the palpi rufous Fore wing with a broad medial golden-brown erect band, with black edges, a black speck at lower angle of cell, the indistinct postmedial white line highly excurved round end of cell, then joining the medial band, the apical costal area and outer margin rufous Hind wing pale fuscous Underside rufous, hind wing with cell-spot and curved postmedial line

Hab Nilgiris Evp 26 millim

2010 Hyela ruptifascia, Hmpsn Ill Het vm, p 75, pl 145, fig 12

d Head, thorax, and abdomen white, palpi rufous Fore wing white, a broad medial slightly oblique black band, a black speck at lower angle of cell, a subtriangular black patch on the costa before apex, a black spot on centre of outer margin cilia black towards outer angle Hind wing pale fuscous Underside with cell-spot and postmedial line

Hab Nilgiris Evp 21 millim

2011 Hyela quadripartita, Will Cat xxxii, p 786, C & S no 1846

Differs from ruptifascia in the head and thorax being marked with black. Fore wing with the medial band rather broader, a triangular black patch on outer margin from apex to outer angle. Hab NW Himalayas, W India, Nilgiris. Exp. 18 millim.

2012 Hyela tegulata, Butl Ill Het vn, p 63, pl 129, fig 1

Differs from ruptifascia in having the medial black band of fore wing broadening towards inner margin and conjoined to a large triangular patch on the outer margin from apex to near outer angle, which is crossed by a highly excurved postmedial line. Hind wing ochreous white, more or less suffused with fuscous

Hab Dharmsála, Nilgiris Erp 20-22 millim

2013 Hyela nigrivittata, Warr P Z S 1888, p 301

Ochreous white, the palpi black. Fore wing with a broad black band, with white edges occupying the centre of the wing, its inner edge waved, its outer irregular and angled at vein 3, a black speck on outer margin above outer angle. Hind wing with an indistinct medial line

Hab Campbellpur Esp, & 22, Q 26 millim

Genus MICARDIA

Micardia, Butl A M N H (5) 1, p 81 (1878)

Type, M argentata, Butl, from Japan

Range Japan, Sikhim

Palpi upturned, reaching vertex of head, and smoothly scaled, antennæ minutely ciliated in male. Thorax and abdomen thout tutts. Fore wing somewhat acute at apex, the outer margin oblique, vein 8 anastomosing with 9 to form the areole. Hind wing with veins 3 and 4 stalked.

2014 Micardia pulcherrima, Moore, P Z S 1867, p 48, pl v1, fig 7, C & S no 1689

d Head, thorax, and abdomen ochreous Fore wing ochreous, the costal and inner areas suffused with pink, the medial area with

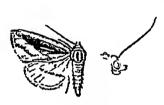


Fig 168
Micardia pulcherrima, d {

fuscous as far as the oblique streak, a black antemedial speck above vem 1, a very prominent silvery-white streak on median nervure, the oblique streak from apex prominent and edged with white, a similar streak from centre of outer margin, some pink and white on vem 2. Hind wing pale, with a faint cell-spot and oblique postmedial line, some black on inner margin towards anal angle.

Hab Sikhim Exp 33 millim

Genus MEGALODES

Megalodes, Guen Noct 11, p 261 (1852)

Type, M erima, Herr-Schaff, from Asia Minor Range Asia Minor, Kashmir, Indian Peninsula

Palpi obliquely upturned, from with a trilobate corneous process, antennæ simple, thorax and abdomen without tufts. Fore wing with the cilia not crenulate, vein 8 given off from 7 and anastomosing with 9 to form the areole

2015 Megalodes kashmirensis, n sp



Fig 169 — Megalodes Lashmircusis, of 1

d Head, thorax, and abdomen yellowish white Fore wing vellowish grey, a narrow curved antemedial white band, the orbicular and reniform indistinct, an oblique nearly straight postmedial and curved narrow submarginal white band an indistinct marginal crenulate white line Hind wing fuscous, the cilia whitish

Hab Gulmurg, Kashmir (Johnstone) Exp 28 millim Type in coll Elwes

310 NOCTUIDÆ

2016 Megalodes denticulosa, Will Cat xxxII, p 676, C & S

Cupreous red-brown, thorax and fore wing irrorated with white scales, the latter with indistinct waved antemedial and highly excurved postmedial line, traces of the remiform stigma, highly dentate submarginal and fine marginal lines white, abdomen and hind wing paler, cilia of both wings grey

Hab Poona, Bombay, Crimbatore Exp 26 millim

Genus TARACHE

Tarache, Hubn Verz p 261 (1818) Euphasia, Steph Ill Brit Ent, Haust 111, p 115 (1829) Agrophila, Guen Ann Soc Ent Fr x, p 228 (1840)

Type, T lucida, Hufn

Range Universally distributed in the tropical, subtropical, and warmer temperate zones

Differs from Hyela in the palpi being porrect, the frons with a rounded corneous projection

Larva with four pairs of abdominal prolegs

SECT I (Tarache) Hind wing with veins 3 and 4 from the cell

A Palp with the 3rd joint short and not reaching beyond the frons

2017 Tarache lucida, Hufn Berl Mag 111, 302 (1767)
Noctua solaris, Schiff Wien Verz p 90
Noctua albicollis, Fabr Spec Ins 11, p 218
Noctua rupicola, Boi kh Schmett Eui 1v, p 82
Noctua titania, Freyer, Beitr Schmett vi, pl 533
Noctua insolatrix, Hubn Samml eui Schmett, Noct figs 684, 685
Acontia triradiata, Wik Cat xii, p 794, C & S no 1849

- d Dark brown, head and thorax more or less intermingled with white scales, abdomen white-ringed. Fore wing with the basal half white, running out to an angle at lower end of cell, the basal area with ill-defined waved blue-grey lines and with a black speck near base, the outer area dark brown, with a large quadrate postmedial costal white patch from which alises a dark waved and incurved line, remiform figure-of-8-shaped, with narrow blue-grey outline, a waved submarginal white line, obsolescent towards costa and sending spurs to outer margin near outer angle, the area beyond it irrorated with blue-grey scales, a marginal series of black specks, cilia white towards outer angle. Hind wing dark brown, with a very irregular white medial band sending spurs inwards towards the base, cilia white. Underside with the brown and white areas of both wings disposed much as on upperside
 - The white markings of both wings less extensive

The variety albicollis has the head, thorax, and abdomen almost pure white, the whole basal area of fore wing pure white, the hind wing white, with broad marginal band, the female like the male of the typical form

Hab Europe, N W Himalayas, Campbellpur Eap 30 millim

- 2018 Tarache hortensis, Swinh P Z S 1884, p 517, pl 47, fig 7, C & S no 1836
- Q Differs from the typical form of lucida in the fore wing having the reniform obsolete, no grey-blue scales beyond the submarginal line, the cilia not white towards outer angle. Hind wing uniform fuscous, the outer area slightly darkest. Underside nearly uniform fuscous.

Hab Karáchi Exp 24 millim

- 2019 Tarache upsilon, Wlk Cat xxxii, p 763, C & S no 1824
- Q Differs from lunda in the costal portion of the medial band of fore wing being obsolete, and replaced by two short fuscous bands from the costa on each side of the large hoop-shaped renform spot with black outline, the submarginal line ill-defined and with black lunules before it. Hind wing uniform dark fuscous Underside nearly uniform pale fuscous

Hab Poona Exp 30 millim

2020 Tarache opalinoides, Guen Noct 11, p 219, C & S no 1844 Calophasia postica, Wik Cat xxxiii, p 764, C & S no 1864

Differs from the white form of lucida in the dark patches of the fore wing being restricted to a large patch on the outer half of inner margin and to some marks on each side of the costal portion of the submarginal line, the reinform an incomplete and indistinct black hoop. Hind wing white, with fuscous marginal band. Underside of fore wing fuscous, hind wing white

Hab Campbellpui, Poona, Nilguis, Ceylon Exp 30 millim

2021 Tarache notabilis, Wik Cat al, p 669, C & S no 1823

Pure white Fore wing with a short subbasal black line from the costa and an antemedial costal spot, each having a dark speck below it, a postmedial costal spot, a broad irregular dark leaden band from the apex to inner margin beyond middle, and traversed by the lunulate black postmedial line, a series of submarginal black lunules which are all obscured by white suffusion except two at the apex and one at outer angle, which last has a rufous lunule inside it, cilia white fuscous towards apex and outer angle Hind wing narrow, with marginal fuscous band, broad at apex, the cilia white

Hab Simla, Punjab, Calcutta Exp 30-38 millim

312 NOCTUIDÆ

2022 Tarache catena, Sonerby, But Musc p 29, pl 14, C S S

Desmophora elegans, Steph Cat Brit Ins no 6398

Pure white Fore wing with a large oblique basal leaden pitch on the costa tinged with olive-yellow, a medial dome-shaped patch, a broad band with curved inner edge extending from the apex to centre of inner maigin, and with a double postmedial series of indistinct lunules on it, a submarginal series of blue-grev spots, the spot above outer angle almost black, calm grey Hand wing nacreous, with a marginal fuscous band, broad at apex, the citi w hite

Natal, Sind, Bombay, Coimbatore Ilab Abyssinia

40 millim

2023 Tarache catenula, WW. Cat raam, p 780, C & S no 1826

Head, thorax, and fore wang violaceous grev-brown, with a golden tinge, the last with some white below base of median nervure a broad oblique white band from cost i to lower ingle of a large quadrate white patch on the costa before aper, from which arises an incurved postmedial black line obsolescent towards inner margin, a submarginal series of blue-grey spots on a white ground and marginal series of short black strigg Hand wing fuscous, the base and disk slightly nacieous, the cilin white

Hab Campbellpur, Karáchi, Combatore Eip 32 millim

B Palm with the 3rd joint longer and criending beyond the from

2024 Tarache albonotata, Hmpsn Ill Het ix p 96, pl 162, fig 22

P Head, thorax, and abdomen fuscous brown tegulæ pure white Hore wing fuscous blown, with traces of numerous paler waved lines, a large white patch from the base to middle of cell, not extending to costa or inner margin, a large white patch on outer costal area leaving a triangular postmedial dark patch on the Hind wing white, slightly suffused with fuscous

Hab Ceylon Exp 22 millim

2025 Tarache swinhoei, Butl P Z & 1883, p 162, C & S no 1752

Head and thorax vinous brown, abdomen fuscous, the segments tringed with rufous Fore wing vinous brown, suffused with fuscous and with indistinct diffused medial and marginal blackish bands Hind wing yellow, with broad black marginal band, cilia rufous Underside yellow suffused with fuscous, especially on fore wing, both wings with indistinct medial, postmedial, and submarginal waved lines

Hab Assirghur, Poona Exp 28 millim

SECT II (Agrophila) Hind wing with veins 3 and 4 stalked 2026 Tarache karachiensis, Swinh P Z S 1889, p 410

d Head and collar white, thorax tinged with fuscous, abdomen with ochieous. Fore wing white, with a rufous patch from lower end of cell to inner margin, the area between the apex, this rufous mark, and the outer margin fuscous, irrorated with white scales, with white marks towards outer angle, and with three black specks on its upper edge, a fuscous spot on the costa before apex, a marginal series of black specks, cilia with patches of white below apex and at middle. Hind wing white, the margin suffused with fuscous. Underside white, the fore wing tinged with ochreous

Q The whole fore wing fuscous, except a diffused white subcostal fascia, the patch below the end of the cell and the outer area tinged with ochreous, an indistinct postmedial line. Hind

wing pale fuscous

Hab Karachi Erp, & 22, 9 24 millim

2027 Tarache olivea, Guen Noct 11, p 217, C & S no 1863
Tarache mivosa, Suuth P Z S 1886, p 446, pl 41, fig 14, C & S
no 1862

Head and thorax white, metathorax blackish, abdomen ochreous white. Fore wing white, the inner and outer areas almost wholly fuscous, a subbasal grey spot, an antemedial curved olive-yellow line, the orbicular and remform small grey ring-spots, traces of two olive-yellow waved lines crossing the inner dark patch, the outer area suffused with olive-yellow in irregular patches. Hind wing very pale fuscous, the outer area slightly darker

Q with the dark areas of the fore wing browner and more extensive, the hind wing dark fuscous

Hab Simla, Dharmsala, Mhow Erp, ♂ 20, ♀ 22 millim

2028 Tarache olivacea Hmpsn Ill Het viii, p 63, pl 142, fig 9

Head and thorax white, abdomen pale fuscous Fore wing white, the costa slightly fuscous, with white strigge towards the apex, the outer half of inner area olive-green, suffused with purple scales and crossed by an indistinct waved postmedial pale line, a fuscous lumile on discocellulars, a lumilate white marginal line Hind wing fuscous

Hab Shanghai, Nágas, Nilgins Enp 24 millim

2029 Tarache binominata, Butl Entom 1892, p 64
Acontia costalis, Will Cut XXIII, p 784 (piæocc), C & S
no 1830

d Head white, thorax dark fuscous brown, abdomen ochreous fuscous. Fore wing black-brown, with a broad pure white costal fascia not reaching the apex, and widest at middle and extremity. Hind wing pale fuscous, the outer area darkest. Underside of fore wing ochreous fuscous, with ochreous costal stripe, the hind wing whitish

Hab Campbellpur, Karáchi, Poona, Coimbatore Exp 20 millim

2030 Tarache tropica, Guen Noct 11, p 217, Moore, Lep Ceyl 111, pl 150, fig 2, C & S no 1866
Acontia bipunctata, Wilk Cat x11, p 798
Acontia maculosa, Wilk Cat x11, p 795, C & S no 1840

of Yellowish white Fore wing with four yellow strige on the costa before the middle, a yellow antemedial patch from median nervure to inner margin, the orbicular and remiform small indis-

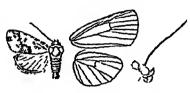


Fig 170 — Tarache tropica, 3

tinct grey ring-spots, a broad diffused submarginal dark yellowish band with some purplish scales on it, and crossed by the postmedial yellow line, which is highly excurved beyond the cell, a submarginal irregularly waved yellow line, two black specks on the margin below apex, the cilia at that point being

blackish, and one black speck above outer angle Hind wing whitish, with fuscous marginal band

2 with the ground-colour pure white, the abdomen fuscous, with white rings Fore wing with the markings much browner

Hab China, Formosa, throughout India and Ceylon, Andamans, Java Exp 23 millim

2031 Tarache basifera, Wik Cat all, p 793, C & S no 1829

Q Differs from tropica in the whole of the inner area of fore wing being purplish fuscous, narrowly so at base, broadly from middle of cell to outer margin, the thorax dark

Hab Karáchi, Poona, Combatore Exp 22 millim

2032 Tarache imbuta, Wik Cat Nill, p 794, C & S no 1799
Acontia acerba, Fild Reis Nov pl 108, fig 25, C & S
no 1827
Acontia inda, Feld Reis Nov pl 108, fig 23, C & S no 1861

d Differs from tropica in the head and thorax being browner, the basal area of fore wing much darker yellow so that the markings are almost entirely obliterated, the whole outer area deep red-brown, with the markings indistinct. Hind wing with the veins and outer area suffused with dark fuscous

Q Head, thorax, and fore wing dark red-brown, the last with a white medial streak on costa and postmedial triangular spot, the pattern being almost obliterated, abdomen and hind wing dark tuscous, the former with slight pale rings

Hab Throughout India, Ceylon, and Burma Exp 24 millim

2033 Tarache crocata, Guen Nort 11, p 218, C & S no 1832
Acontia signifera, Wik Cat x11, p 796
Acontia meridionalis, Wik Cat xxx111, p 785, C & 116 1841
Acontia scauda, Feld Reis Nov pl 103, fig 27, C & S no 1848

d Differs from imbuta in the fore wing having the outer half red-brown, suffused with purplish, the reniform purplish, with a yellow centre, a triangular postmedial spot on the costa, from which arises an incurved dark dentate postmedial line, an indistinct dentate yellow submarginal line Hind wing yellow, with a broad irregular black-brown band

Q with the whole ground-colour of the fore wing purplish ied-brown, a short yellow antemedial line from the costa, quadrate medial and triangular postmedial costal spots

with the basal two-thirds bright orange

Exp 22Hab Simla, Dharmsála, Bombay, Coimbatore mıllım

2034 Tarache nubilosa, n sp

d Head reddish, thorax grevish white, abdomen pale fuscous. Fore wing dull white, the basal half of costa with conjoined dark blotches, medial area rufous and dark brown, bounded inwardly by a waved black line, the reniform black, with a grey line excurved round end of cell beyond it, marginal area clouded with grey Hind wing fuscous

Hab Simla (Harford) Exp 20 millim Type in B M

2035 Tarache fascialis, n sp

d Head and thorax dark brown, abdomen paler, with pule segmental rings Fore wing dark reddish brown, the costal area sulphur-yellow, sending a spur to beyond lower angle of cell, a sulphur fascia below median nervure from base to beyond middle, a sulphur band on outer margin Hind wing reddish brown Park olivaceous brown Fore wing with slight grey suffu-

sion, grey streaks at the two angles of cell, and a grey line on

outer margin

Hab Sind and Gurais Valleys, Kashmir (Leech) Exp 24 millim Type in coll Leech

2036 Tarache sulphuralis, Berget Ins Suec. 1, p 16, C & S

Bombyx lugubris, Fabr Ent Syst 111, 1, p 467 Pyralis trabealis, Scop Ent Carn 610

Noctua arabica, Berl Mcg 111, 412 Noctua sulphurea, Hubn Eur Schmett Noct pl 60, fig 291

Head and throax black, frons, collar, tegulæ, and metathorax marked with vellow, abdomen fuscous, the segments ringed with Fore wing yellow, with broad black stripes along ochreous median nervure and inner margin, two pairs of obliquely placed spots on costal area, an irregular oblique postmedial band with a leaden-coloured band on it, a submarginal series of black spots and marginal series of specks, cilia brownish Hind wing fuscous black, the cilia pale Underside of fore wing yellow, with irregular black markings, hind wing with black cell-spot and postmedial and submarginal bands

Hab Europe, Turkestan, Japan, China, Baluchistan, Afanistan Evp 24 millim

ghanistan

2037. Tarache flavonigra, Swinh P Z S 1884, p 522, pl 47, fig 15, C & S no 3026

Head and collar fuscous black, thorax and abdomen ochreous Fore wing with the base pale ochreous, a black spot at base of costa, the outer two-thirds of wings fuscous black. Hind wing

In the Bombay specimen the distal part of the abdomen and

hind wing are dark fuscous

Hab Aden, Sind, Bombay Exp 16-20 millim

Genus XANTHOPTERA.

Xanthoptera, Guen Noct 11, p 240 (1852) Phyllophila, Guen Noct 11, p 254 Bagada, Wik Cat xv, p 1753 (1858) Hiccoda, Moore, Lep Atk p 134 (1882)

Type, X botyoides, Guen, from Brazil

Range Nearctic, Neotropical, and Oriental regions

Palpi upturned, reaching vertex of head, and smoothly scaled, antennæ minutely ciliated in male, thorax and abdomen without Fore wing rather short and broad, vein 8 given off from 7 and anastomosing with 9, which is given off from 10 to form the Hind wing with veins 3 and 4 from cell or on a very short stalk

Larvæ with 4 pairs of abdominal prolegs

SECT I Female with antennæ almost simple

2038 Xanthoptera marginata, Wik Cat xxxv, p 1775, Hmpsn Ill Het viu, pl 143, fig 21

Head, thorax, and fore wing bright straw-yellow, the last with a marginal black band, bordered inwardly by a deep black slightly Abdomen, hind wing, and underside fuscous or smoky waved line black

Hab Dharmsála, Nilgiris, Java Exp 20 millim

- 2039 Xanthoptera flavifrons, Moore, Lep Ceyl m, p 552, pl 214, fig 8, C & S no 2824
- d Uniform brownish ochreous, the head bright yellow, antennæ and base of palpi fuscous, the front of thorax tinged with Fore wing with a slight purplish tinge

Hab Ceylon Exp 24 millim

2040 Xanthoptera fuscicilia, Hmpsn Ill Het viii, p 75, pl 145, fig 17

Head, thorax, and fore wing bright reddish ochreous, the cilia fuscous Abdomen and hind wing ochreous, suffused with fuscous Underside fuscous, the costa and outer margin ochreous, hind wing with cell-spot

Hab Nilgiris Eap 20 millim

2041 Xanthoptera argentifrons, Butl Ill Het vii, p 65, pl 130, fig 1

Head and thorax black abdo nen fuscous. Fore wing pale straw-yellow, the base black, triangular black costal marks at centre and before apex, the latter small the outer margin and ciha black, the ochreous area deeper in tone towards the margin, and running out to the margin below apex and at centre. Hind wing fuscous

Hab Dharmsála Evp 20 millim

2042 Xanthoptera triangularis, Wari P Z S 1883, p 309

Q Differs from argentifrons in the ground-colour of the fore wing being pale pinkish brown, the basal black patch and medial costal patch larger, the costal patch before the apex absent, the marginal black band more regular

Hab Campbellpur Exp 17 millim

- 2043 Xanthoptera mianoides, *Hmpsn Ill Het* 1x, p 98, pl 162, fig 16
- d Head and thorax dark brown, abdomen fuscous, with pale rings. Fore wing with the basal half dark brown, with four waved black lines on it, a black subbasal spot below median nervure, the orbicular represented by a black speck on the fourth line, the reinform by a black lumile on the line terminating the dark area which is bent inwards below the cell, the outer hilf of wing ochreous white, the outer area suffused with brown, a faint postmedial line highly excurved beyond the cell, an indistinct pale waved submarginal line. Hind wing fuscous brown
- 2 Fore wing with the outer area the same colour as the basal half of wing, crossed by a broad white band traversed by the post-medial line

Hab Ceylon Exp 20 millim

2044 Xanthoptera opella, Swinh P Z S 1885, p 456, pl 27, fig 16, C & S no 1858

Differs from mianoides in the outer edge of the dark basal area of the fore wing being straighter, the postmedial line less excurved,

1

the submarginal line straighter, and with a dark sinus on it below middle

In the type from Poona the postmedial and submarginal lines have gilded scales on them, in the Campbellpur specimen the head, thorax, abdomen, and base of fore wing are ochreous

Hab Simla, Campbellpur, Karachi, W India Exp 19

mıllım

- 2045 Xanthoptera melanchlæna, Swinh Trans Ent Soc 1891, p 148
- d Head and thorax black-brown, abdomen paler Fore wing purplish black-brown, a postmedial pale band, which is traversed by a dark line slightly excurved beyond the cell, traces of a submarginal line becoming pale towards outer area. Hind wing dark fuscous

Hab N Canara Exp 17 millim

2046 Xanthoptera excisa, Swinh P Z S 1885, p 455, C & S 1834

Acontia quintana, Swinh P Z S 1885, p 455, pl 27, fig 13, C & S no 1847

Head, thorax, and abdomen olive-brown Fore wing white, an olive-brown basal patch with black marks on its outer edge, an indistinct antemedial waved line, a broad medial leaden-grey band with a black spot on it at end of cell, and some waved blackish marks towards its outer edge, a waved postmedial line, outer area grey, with a waved submarginal line on it Hind wing pale fuscous, with an indistinct pale medial line

Some specimens have hardly any white on each side of the postmedial line, others are large and dark, the form quintana is without olive and brown tints, the grey of outer area of fore wing

broken into patches

Hab Simla, Dharmsála, W India, Coimbatore Exp 18-22

mıllım

2047 Xanthoptera nigripalpis, Wil. Cat xxxv, p 1965, C & S no 1842
Hiccoda dosaroides, Moore, Lep Ath p 135, id Lep Ceyl in, pl 150, fig 16, C & S no 1818

Ochreous Fore wing with some dark specks on costa, traces of waved subbasal, antemedial, medial, and postmedial rufous lines, the last recurved beyond the cell, reniform large, rufous, and suffused with fuscous, cilia pinkish, chequered with black Hind wing fuscous, the cilia ochreous, underside with cell-spot and postmedial line

Hab N W Himalayas, throughout Peninsular India and Ceylon.

Eap 18 millim

2048. Xanthoptera veprecola, Swinh P Z S 1885, p 456, C \$ S no 1875

d Head, thorax, and abdomen pale brown Fore wing redbrown, irrorated with dark scales and with dark streaks on and between the veins of outer area, irregularly dentate ante- and postmedial lines, the latter excurved round end of cell, orbicular and remiform large, pinkish brown, and somewhat prominent, traces of a pale submarginal line Hind wing pale fuscous

Hab Poona Exp 20 millim

2049 Xanthoptera plebena, Butl Ill Het vn, p 61, pl 129, fig 3

Ochreous, irrorated with dark brown scales Fore wing with the subbasal and autemedial waved lines single, pale, and indistinct, the orbicular and reinform ochreous white, the postmedial waved line slightly excurved, medial diffused purplish fuscous band conjoined at median nervure to the purplish-fuscous shade which is diffused over the whole outer area, except a costal patch and another beyond the lower part of the postmedial line, some black marginal spots Hind wing fuscous

Hab Dharmsála, Bhután Erp 22 millim.

2050. Xanthoptera spicea, Guen Noct 1, p 226
Perigea tricycla, Guen Noct 1 p 226, C & S no 2103
Bagada pyrochroma, Will Cat xv, p 1753, Hmpsn Ill Het 1x,
pl 162, fig 2, & pl 176, fig 20 (laiva), C & S no 1876
Acontia firma, Swinh P Z & 1885, p 455, pl 27, fig 5, C & S
no 1835

Head, collar, and patagia reddish cchreous, thorax grey, abdomen ochreous Fore wing reddish ochreous, with traces of numerous transverse lines in the form of strige and specks on

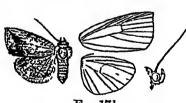


Fig 171 Xanthoptera spicea, S

the costa, the orbicular a pale blotch with black centre, remform similar, but figure-of-8-shaped, and with a black spot beyond it on the indistinct curved postinedial line, beyond which is a series of grev specks, an oblique dark streak from the apex, a marginal series of black specks, the inner margin grey,

Hind wing ochreous fuscous, with

becoming black at outer angle Hind indistinct broad marginal darker band

In the form tricycla=pyrochroma the fore wing is redder, the area below the cell and outer area being very bright chestnut

Larva pink, the dorsal area speckled with small white spots, dorsal and subdorsal white lines, a broad pale yellow lateral stripe Head greenish

Hab Simla, Sylhet, W India, Nilgiris, Ceylon, Java Exp 24-28 millim

2051 Xanthoptera magna, Swinh MS

Differs from the form tricycla in the metathorax only being grey. Fore wing greenish vellow, less irrorated with black the orbicular and reinform almost or quite obsolete, the inner and marginal reddish areas more suffused with bluish grey. Hind wing dark fuscous. Underside with indistinct postmedial line and pale marginal band to both wings.

Hab Sikhim, Khásis Lip 40 millim Type in B M

2052 Xanthoptera nigridia, Swinh MS

d Differs from magna in the cilia of the fore wing being crenulate, the head and thorax rufous, suffused with black. Fore wing rufous, with the obscular and reniform more distinct, the outer area below the oblique line from the anex suffused with black, the inner area also slightly suffused. Abdomen and hind wing black, the cilia reddish. Underside with the costa and outer margin of both wings irrorated with red.

A Brownish ochreous the abdomen reddish. Fore wing without black suffusion, the black spot beyond outer edge of remform prominent. Hind wing reddish, the outer area suffused with fuscous. Underside much paler, hind wing more suffused

with red

Hab Khásis Ecp 38 millim Type in B M

2053 Xanthoptera grisea, Hmpsn Ill Het vin, p 63, pl 142, fig 7

d Grey, uniformly irrorated with grey-brown Fore wing with an angled medial dark line, with rust-red patches before it in and below end of cell, the outer area slightly suffused with rust-red scales, a submarginal dark line slightly bent below the costa

Hab Nilgiris Nágas Exp 30 millim

SECT II Female with the antennæ strongly ciliated

- 2054 Xanthoptera modesta, Moore, Lep Ceyl 111, p 55, pl 150, fig 13, C & S no 1908
 Phillophila grisea, Hmpsn Ill Het 1x, p 100, pl 102, fig 10
- Q Head and collar clothed with light and dark brown scales, thorax white, irrorated with a few brown scales, abdomen pale fuscous. Fore wing whitish, thickly irrorated with brown, a black speck at base, the remform dark, some dark strigge on costa, a prominent series of marginal specks. Hind wing pale fuscous, underside with cell-spot, minutely crenulate postmedial line, and marginal series of specks.

The form grisea has the reinform spot obsolete

Hab Ceylon Eap 30 millim

COSVIA 321

Genus COSMIA

Cosmia, Ochs Eur Schmett iv, p 84 (1816) Elydna, Wlk Cat vv, p 1712 (1858)

Type, C diffinis, Linn, from Europe

Range Europe, Japan, China, Himalavas, Burma

Differs from Xanthoptera in being more stoutly built, the outer margin of fore wing more oblique towards outer angle, and with the cilia cienulate

Larvæ with four pairs of abdominal prolegs

2055 Cosmia restituta, Will Cat x, p 490, C & S no 1794

Head and thorax chestnut, abdomen fuscous Fore wing chestnut, slightly suffused with fuscous, an oblong subbasal white



Fig 172 Cosmia restituta, d

spot on the costa, a quadrate antemedial spot extending as a narrow line across the cell, a triangular patch, followed by a linear spot before the apex, traces of subbasal and antemedial dark lines, faint traces of orbicular and reniform stigmata, and highly curved postmedial and submarginal lines. Hind wing dark fuscous,

with the cilia yellow Underside reddish othereous, suffused in paits with fuscous, a cell-spot and postmedial line to both wings

The Nepal specimen is much darker and less red Hab Murree, Nepal Exp 30-38 millim

2056 Cosmia affinis, Linn Syst Nat XII, p 848

Head, thorax, and fore wing pale or bright ied-brown abdomen fuscous, with slight pale segmental rings and ochreous anal tutt. Fore wing with whitish indistinct short subbasal, obliquely sinuous antemedial, and postmedial line excurved beyond the cell, traces of a fuscous medial line and of orbicular and remiform spots, an indistinct pale sinuous submarginal line. Hind wing nearly uniform dark fuscous, or the basal area pale, the outer blackish, cilia bright yellow.

The fore wing may be suffused in parts with black and the

apical area with white

Hab Europe, Japan, Gurais Valley, Kashmir Evp 32-38 millim

2057 Cosmia transversa, Will Cat xv, p 1713, C & S no 1122

Q Head, thorax, and fore wing ochreous irrorated with dark scales, the last with an oblique dark antemedial line, a post-

medial line angied at vein 6 and slightly curved towards inner margin, curved submarginal and marginal lines. Abdomen and hind wing brighter yellow

Hab Moulmen Eap 38 millim.

2058 Cosmia ochracea, n sp

Q. Ochreous Fore wing irrorated with a few black scales, a waved antemedial erect line, a postmedial crenulate line, slightly angled and regularly excurved beyond the cell, a submarginal irregularly crenulate line, with a series of dark specks beyond it, the cilia fuscous Hind wing orange-yellow, especially towards outer margin Underside with small cell-spots

Hab E Pegu, 5000 feet (Doherty) Eap 40 millim Type m

coll Elwes

Genus ACONTIA

Acontia, Och: Eur Schmett iv, p 91 (1816) Xanthodes, Guen Noct ii, p 209 (1852)

Type, A malvæ, Esper

Range Universally distributed in the tropical, subtropical, and

warmer temperate zones

Palpi long, porrect, and met by a short sharp frontal tuft, the 3rd joint prominent, antennæ simple, thorax and abdomen smoothly scaled and without tufts. Fore wing with the cilia non-crenulate, veins 7, 8 and 9, 10 stalked

Larvæ with four pairs of abdominal prolegs

- SECT I Male with the palpi smoothly scaled in front, the tibue not hairy, the fore wing not excised towards outer angle
- 2059 Acontia malvæ, Esper, Schmett iv, 2, p 63, pl 195, hg 4
 Xanthodes stramen, Guen Noct ii, p 210, C & S no 1812
 Xanthia imparata, Wlk Cat x, p 467, C & S no 1807
 Xanthodes impellens, Wlk Cat xv, p 1752, C & S no 1808
 Xanthodes inefficiens, Wlk Cat xv, p 1752, C & S no 1809

Head whitish, thorax bright canary-yellow, abdomen ochreous Fore wing bright canary yellow, with an oblique waved antemedial line, reinform oval, with a brown outline or often obsolete, a postmedial line highly excurved beyond the cell and angled towards inner margin, two submarginal lines, the inner line angled below the costa, a large diffused triangular patch extending over the whole of the outer area, its apex running up to the costa at the postmedial line. Hind wing iridescent white, sometimes suffused with brownish or ochreous, or with the apical area only brownish or ochreous.

Hab Europe, Formosa, throughout India Erp 30-36

mıllım

ACONTIA 323

SECT II Male with the palpi more hairy in front, the tibiæ clothed with long hair, the fore wing with the outer margin more or less excised towards outer angle

2060 Acontia transversa, Guen Noct 11, p 211, pl 10, fig 5 Xanthodes flava, C & S no 1805 (nec Fabr), Moore, Lep. Ceyl 11, pl 149, figs 2, 2 a (larva)

Bright canary-yellow, palpi and legs red-brown, vertex of thorax tinged with rufous. Fore wing with ante- and postmedial highly angulated rufous lines, which are sometimes waved, the

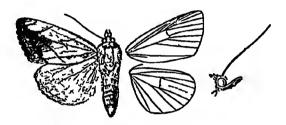


Fig 173 -Acontia transversa, &

latter touching a submarginal angled line, a large bright rufous triangular patch occupying the whole outer area, and sometimes produced backwards along median nervure to the base, or occasionally almost obsolete, a black subapical speck, cilia rufous Hind wing slightly suffused with red-brown, the outer margin rufous

Larva pale green, with a few very fine hairs, subdorsal, lateral, and sublateral series of white spots, the subdorsal series with a larger yellow spot on each somite

Pupa pale pinkish red

Hab China, throughout India, Ceylon, and Burma, Java, Duke of York Isle Exp 40-44 millim

2061 Acontia intersepta, Guen Noct 11, p 212, Moore, Lep Ceyl 111, pl 149, fig 3, C & S no 1811
Acontia imitata, Moore, Lep Ceyl 111, p 42, pl 149, fig 4, C & S no 1837

Differs from transversa in having the palpi pure white in front, the vertex of head whitish, the thorax not tinged with rufous. Fore wing with the transverse lines reduced to a series of specks, the antemedial series curved

Hab Throughout India, Ceylon, and Burma, Java Exp. 44-50 millim

2062 Acontia grælls.1, Feisth Ann Soc Ent Fr vi (1837), p 300, pl 12, hg 3, C & S no 1806

Xanthodes innocens, Will Cat xv, p 1752, C & S no 1810

Xanthodes fimbriata, Will Cat xxxii, p 777

Differs from intersepta in the fore wing having no transverse series of specks, these being represented at most by specks below the costa, a rufous fascia from lower angle of cell to outer margin below apex replacing the large triangular patch. Hind wing pure white, the apical area suffused with otherous

Hab S Europe, W and S Africa, Mauritius, Aden.

throughout Peninsular India Exp 36-43 millim

Genus MARIMATHA

Marimatha, Will Cat axxiv, p 1204 (1865)

Type, M dinumeratalis, Wlk, from Honduras

Range Neotropical region, Africa, Aden, Khásis, Nilgiris Palpi with the 2nd joint reaching above vertex of head, the 3id long, thorax and abdomen without tufts, antennæ cibated Fore wing with the apex almost rectangular, veins 8 and 9 anastomosing to form the areole Hind wing with veins 3, 4 from cell



Fig 174
Marimatha subflavalis, d

2063 Marimatha subflavalis, Will.

Cat xxxiv, p 1205, C & S no
1869

Ochreous, the head pinkish Fore wing with a black speck at end of cell, the outer area black except at apex Hind wing paler, the outer area fuscous

Hab Kılımanjaro, Aden, Kılgırıs Erp 24 mıllım

2064 Marimatha xanthoptera, n sp

d Differs from subflavalis in the thorax and fore wing being bright yellow. Fore wing with the outer area, except at apex, bright chestnut, with some fuscous suffusion. Hind wing and underside suffused with fuscous, cilia of both wings pinkish.

Hab Khásis, 6000 feet (Elives) Erp 26 millim Tipe in

coll Elwes

Genus SWINHOEA, nov

Type, S vegeta, Swinh

Range Abyssinia, Punjab, Bombay

Palpi upturned, the 2nd joint roughly scaled, the 3rd long and slender, from with a rounded projection antennæ of male minutely chiated, thorax and abdomen smoothly scaled, tibiæ

slightly harry Fore wing of nearly even width throughout, the apex nearly rectangular, veins 8 and 9 anastomosing to form the Hind wing with veins 3, 4 and 6, 7 from cell

2065 Swinhoea vegeta, Swinh P Z S 1885, p 475, pl 28, fig 14, C & S no 3043

Head and collar fuscous, thorax vinous, abdomen fuscous

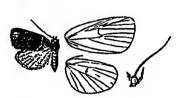


Fig 175 Swinhoea vegeta, &

Fore wing vinous brown, the base pale, the outer two-thirds much darker, an indistinct short pale subbasal line, a black speck above inner margin near base, obliquely waved antemedial, medial, and postmedial lines Hind wing fuscous underside with indistinct cell-spot and postmedial line

Hab Abyssinia, Punjab, Bombay Exp 22 millim

Genus METACHROSTIS

Metachrostis, Hubn Verz p 204 (1818) Ozarba, Wlk Cat xxx11, p 684 (1865)

Type, M velox, Hubn, from Europe

Range Europe, Japan, China, throughout India, Ceylon, and Burma, Java, Australia

Palpi long and upturned, reaching above vertex of head, thorax and abdomen without tufts. Fore wing with veins 8, 9, 10 stalked, vein 7 sometimes almost or quite touching 8, and torming an areole

SECT I (Metachrostis) Ground-colour purplish or brownish grey

A Antennæ strongly ciliated in male

2066 Metachrostis miasma, Hmpsn Ill Het viii, p 73, pl 145, fig 16

Dark purplish grey Fore wing crossed by some eight or nine ill-defined and diffused fuscous-black waved lines, the orbicular a black speck, the reniform a black spot Hind wing dark fuscous

Hab Nilgiris Exp 19 millim

2067 Metachrostis egens, Moore, Lep Ceyl 111, p 68, pl 151, fig 9, C & S no 2216 Metachrostis contingens, Moore, P Z S 1888, p 412, Butl Ill Het v11, p 65, pl 129, fig 13

Pale grey-brown Fore wing with subbasal, antemedial, medial, and postmedial waved dark lines arising from fuscous spots on the costa, the postmedial line indistinct, the orbicular a speck, reinform represented by parallel lines, an indistinct dentate submarginal line. Hind wing with the inner half irrorated with dark scales and with traces of medial, postmedial, and submarginal dark lines on it

Hab. Dharmsála, Ceylon Evp 21 millim

2068 Metachrostis fasciata, Hmpsn Ill Het vin, p 91, pl. 147 ig 10

Fuscous, suffused with grey Fore wing with subbasal, antemedial, medial, and postmedial waved lines, the 1st short, the 3rd excurved round cell, the last irregular, a dark mark on discocellulars, a crenulate submarginal line, a series of marginal dark specks Hind wing with four indistinct waved black lines and a marginal series of specks

The male has some pale red-brown on disk of fore wing and

submarginal line and cilia of both wings

Hab. Nilgiris Exp, 330, 226 millim

B Antennæ almost simple in male

2069 Metachrostis quinaria, Moore, P Z S 1881, p 371, C & S no 1902

Differs from egens in being less brown, the costal spots of the fore wing black, the remiform ill-defined

Hab NW Himalayas, Punjab, Karáchi, Mhow Eip 23 millim

2070 Metachrostis obliquisigna, n sp

Fuscous grey, irrorated and suffused with black-brown. Fore wing crossed by six indistinct waved lines; an oblique black band from costs to lower angle of cell. Hind wing crossed by five indistinct waved lines; both wings with marginal black line.

Hab Dharmsála (Hocking) Exp 19 millim Type in B M

2071 Metachrostis obscura, n sp

Dark grey. Fore wing with very obscure darker lines and bands, the most distinct of which are an oblique band from just beyond the lower angle of cell to inner margin and a diffused sinuous submarginal band. Vein 7 of the fore wing just touches 8 and 9, and forms a slight areole.

Hab Nágas, 6000 feet (Doherty) Erp 26 millim Type in

coll Elwes

SECT II (Ozarba) Ground-colour brown or ochreous

A Antennæ serrate in male

2072 Metachrostis destituta, Moore, Lep Ceyl 111, p 48, pl 150, fig 6, C & S no 1860

Pale reddish brown Fore wing with a dark brown band between the subbasal and antemedial double waved lines, a dark medial band slightly angled on median nervure, remform with dark outline, a postmedial waved line, the submarginal line indistinct and arising from a large dark triangular mark on the costa with a black spot on its lower edge. Hind wing fuscous

Hub Khásis, Ceylon Enp 20 millim

B Antennæ almost simple in male

- a Fore wing with the outer margin not excurved at centie
- 2073 Metachrostis undulata, Hmpsn Ill Het 11, p 98, pl 162, fig 20
- of Ochieous white Head and collar fuscous, thorax and fore wing irrorated with black scales, the latter with black spots on the costa, a black spot at base, traces of six very ill-defined waved lines, remform a large fuscous-black spot in the curve of the postmedial line, hind wing pale. Underside of fore wing with black costal spots towards apex, hind wing with discocellular and postmedial lines.

Hab Ceylon Erp 18 millim

2074 Metachrostis conspersa, Butl P Z S 1880, p 673
Miresa quadrinotata, Moore, P Z S 1888, p 403, C S S
no 1315 A

Ochreous Fore wing more or less irrorated with black, and with black specks in and at end of cell

Hab Formosa, Kúlu Eip 20 millim

- 2075 Metachrostis acervalis, Swinh P Z S 1886, p 451, C & S
- d Almost uniform pale ochreous, with a slight purplish-fuscous tinge, the head and collar pure white, palpi tinged with fuscous at sides. Fore wing with traces of a dark speck at end of cell and one or two beyond it, a greyish streak from end of cell to outer margin and some marginal greyish streaks in the interspaces a black speck sometimes present near outer angle. Hind wing with the outer area suffused with greyish

Hub Mhow Exp 20 million

2076 Metachrostis incondita, Butl Ill Het vii, p 69, pl 1°0, fig 13

Dark reddish brown Fore wing with ochreous specks on the costa, an indistinct band between the slightly waved subbasal and antemedial lines, a diffused medial band interrupted by the large reniform spot, which is defined by an ochreous and black lunule on its inner edge, its outer edge by two sinuations of the postmedial line, beyond which is a trilobed black patch, the apical area darker, an irregularly undulated submarginal line. Hind wing dark fuscous, underside with cell-spot, postmedial and submarginal lines.

Hab, Dharmsála, Bhután, Calcutta Eap 20-22 millim

2077 Metachrostis hypenoides, Butl Ill Het vii, p 65, pl 130, fig 2

d Head, thorax, and abdomen fuscous Fore wing pale pinkish brown, traces of subbasal and antemedial waved lines, a prominent medial sinuous line with some blackish suffusion inside it, the reinform black and triangular, an indistinct sinuous submarginal pale line with some dark suffusion inside it at costa Hind wing pale fuscous

2 With the blackish suffusion inside the medial line of fore

wing forming a wide band

Hab Simla, Dharmsála Erp, 3 20, 2 24 millim

2078 Metachrostis unduligera, Butl Ill Het vii, p 63, pl 129, fig 9

Head and thorax grey-brown, metathorax fringed with white, abdomen ochreous brown Fore wing grey-brown, with indistinct waved double subbasal and antemedial lines, the orbicular and remiform indistinct, usually with a dark patch between them, from which proceeds a dark line, angled below the cell, to inner margin, a pale postmedial line excurved and bracket-shaped beyond the cell, traces of a pale sinuous submarginal line. Hind wing dark fuscous

Hab Dharmsála, Simla Evp 18-20 millim

2079 Metachrostis rectifascia, n sp

Q. Dark brown Fore wing with a dark subbasal mark and antemedial lunule below median nervure, a broad slightly oblique medial band with black edges, its inner part ochreous, its outer brown, and with a dark patch beyond it at centre, an indistinct submarginal ochreous waved line with a dark patch inside it at costa, one beyond it at middle of outer margin, and a third at outer angle, a dark marginal line, cilia ochreous Hind wing

dark fuscous, with the cilia ochreous Underside with traces of a medial pale band and submarginal series of specks to both wings

Hab Bombay Exp 28 millim Type in B M

2080 Metachrostis transversa, Moore, Lep Ceyl m, p 57, pl 150, fig 15, C & S no 1911

d Differs from nectifascia in being dark fuscous, abdomen with grey fringes to the segments. Fore wing with an indistinct antemedial line, the medial band with a dark line towards its outer edge instead of the brown shade, the submarginal line whitish, with but slight traces of the dark patches on each side of it, the cilia grey

Hab Ceylon Erp 22 millim

2081 Metachrostis punctigera, Will Cat xxxii, p 685, Hmpsn
Ill Het viii, pl 143, ng 6, C & S no 2129
Grammodes excavata, Will Cat xxxiii, p 978, C & S no 2677



Fig 176
Metachrostis punctigera, & 1

Head and thorax purplish redbrown, abdomen fuscous Fore wing purplish brown, with five indistinct brown lines before the middle, often almost obsolete, an erect medial line, beyond which the whole outer area is suffused with bright chestnut, the reniform with its lower half surrounded by

black specks, a double postmedial ochreous line, acutely angled below the costa, then straight and oblique to inner margin, three ochreous costal specks towards apex, an irregularly waved submarginal pale line. Hind wing fuscous, both wings with a fine pale marginal line. Underside of hind wing irrorated with ochreous, a cell-spot, and postmedial and submarginal lines.

In some specimens vein 7 of the fore wing almost touches 8 and 9

Hab Japan, China, Dharmsála, throughout the Bombay and Madras Presidencies, Australia Eip 26-32 millim

2082 Metachrostis bipars, Hmpsn Ill Het viii, p 75, pl 145, fig 2

d Differs from punctigera in the fore wing having the black marks round the reniform more prominent, the postmedial line slightly undulated between the angle and inner margin, the submarginal line dentate

Q with the cilia pinkish Hab Nilgiris $E \wr p$ 30 millim

- 2083 Metachrostis honesta, WU Cat xxxii, p 677, C & S no 2136
- Q Differs from punctigera in being much more ochreous in tone, fore wing with the outer half paler chestnut, the postmedial line excurved beyond the cell instead of angled

Hab Combatore Eup 22 millim

- 2084 Metachrostis itwarra, Swinh P Z S 1885, p 452, pl 27, fig 14, C & S no 2127
- Q Differs from punctigera in the postmedial line of the fore wing not being angled, but having three undulations, the submarginal line excurved at middle

Hub Karáchi, Poona, Nilgiris. Evp 22-26 millim

2085 Metachrostis badia, Swinh P Z S 1886, p 445, C & S no 1828

Differs from *itwarra* in being redder brown. Fore wing with the subbasal and antemedial lines almost obsolete, the medial line bounding the chestnut shade oblique towards inner margin, the black spots round the reniform smaller, the postmedial line more incurved between vein 4 and the inner margin, the submarginal line and marginal specks very indistinct

Hab Bombay, Mhow Eap 18 millim

2086 Metachiostis venata, Butl Ill Het vu, p 70, pl 130, fig 12

Differs from punctigera in being violaceous grey-brown Fore wing with the subbasal lines very indistinct, the outer half with the veins pale and unevenly suffused with fuscous, the black specks round the reniform more prominent, the postmedial line excurved between veins 2 and 7 instead of angled, the submarginal line whitish and excurved at middle Hind wing pale fuscous

Hab. Dharmsála Evp 22 millim

2087 Metachrostis mallarba, Swinh P Z S 1885, p 452, pl 27, fig 3, C & S no 2128

Differs from venata in being dark fuscous Fore wing with double subbasal and antemedial lines on pale bands

Hab Poona, Thyetmyo, Burma Exp 22 millim

- 2088 Metachrostis uberosa, Swinh P Z S 1885, p 457, C & S no 1898
- 2. Differs from mallarba in having a greenish-yellow tanger Fore wing with the subbasal and antemedial lines curved and indistinct, the postmedial line more angled beyond the remform, the submarginal line more sinuous, the veins not pale

Hab Poona Exp 16 millim

2089 Metachrostis pulla, Suinh P Z S 1885, p 456, pl 27, fig 15, C & S no 1845

Pale reddish brown Fore wing with the subbasal, ante- and postmedial double waved lines indistinct and obscured by fuscous suffusion the submarginal waved line almost obsolete and arising from a dark costal triangular patch Hind wing dark fuscous, underside with cell-spot and irregularly waved postmedial line

The Ganam specimen has the fore wing more variegated the reniform slate-coloui, a dark spot on outer margin below apex

Hab Ganjam, Poona, Nilgiris Eip 24 millim

- 2090 Metachrostis fusca, Hmpsn Ill Het 13, p 97, pl 162, fig 9
- Differs from pulla in having the outer area of fore wing dark, the lines better defined, the triangular patch of costa near apex much broader and with a black mark on its lower edge Underside of hind wing with regularly curved postmedial and submaiginal lines

Hab Ceylon Eip 28 millim

- 2091 Metachrostis arenacea, Hmpsn Ill Het ix, p 97, pl 162, fig 3
- Differs from fusca in being ochreous suffused with rufous For wing with a small black ring-mark representing the orbicular, the niner edge of the remform a black <-mark, postmedial line indistinct, with a black speck on it beyond the cell, a series of maiginal black specks. Underside of bind wing with the cell-spot and lines more prominent

Hab Ceylon Exp 30 millim

- 2092 Metachrostis separata, Will Cat xxxiii, p 752, C & S по 2332
- d Reddish grev-brown, palpi with the 2nd joint black at sides, a black spot at base of abdomen. Fore wing with basal and antemedial black spots on the costa, a large dark patch on centre of costa extending to near lower angle of cell, the remitorm very indistirct, with some dark specks on its outer and lower edges, traces of a simuous postmedial line with two dark specks on it at vein 2, a subtriangular dark costal patch before apex with white specks on it, traces of a sinuous submarginal line and marginal series of specks

Vein 7 of the fore wing touches 8 and forms an areole Hab "N-India" Eip 32 millim

2093 Metachrostis divisa, n sp

Differs from arenacca in being red-brown Fore wing with an oblique medial straight line, the area beyond it darker, a black spot beyond the lunule at end of cell, some black streaks below the subtriangular costal patch, which is red-brown, the submarginal line dentate

Another form has the basal area of fore wing grey, running out to a point below the ieniform, the outer area much redder and

without the dark subapical streak

Hab Sikhim Exp 38 millim Type in coll Elwes

2094 Metachrostis semialba, n sp

of Ochreous white Fore wing with the apical area redbrown from middle of costa to anal angle, dark red-brown patches on centre of costa and before apex, the remform indistinct, a postmedial line highly angled below the costa, with a bluish-white patch inside its costal portion, a marginal series of black and white specks Hind wing suffused with fuscous, a marginal series of black specks

Hab Momert, Burma (Doherty) Erp 26 millim Type in

coll Elwes

2095 Metachrostis trigona, Hmpsn Ill Het vin, p 74, pl 145, fig 4

d Head and collar dark red-brown, thorax, abdomen, and fore wing grey, irrorated with dark-brown scales, the last with traces of waved lines, an antemedial triangular patch on the costa and larger medial patch extending to lower angle of cell and with two black specks on it, outer area suffused with brown, with pale waved submarginal and marginal lines Hind wing fuscous, underside paler, with cell-spot, postmedial and submarginal lines

Hab Nilgiris Exp 24 millim

2096 Metachrostis brunnea, Hmpsn Ill Het vm, p 74, pl 145, fig 11

Q Head, thorax, and abdomen fuscous, the last with slightly paler segmental rings. Fore wing brown, thickly irrorated and suffused with dark brown and with slight traces of waved transverse lines, some indistinct black spots on costa, a dark patch on outer margin below apex—a marginal series of black specks—Hind wing dark fuscous

Hab Nilgiris Exp 22 millim

b Fore wing with the outer margin excurved at centre

2097 Metachrostis excisa, Hmpsn Ill Het viii, p 76, pl 145, fig 21

Head, thorax, and abdomen dark red-brown Fore wing suffused with grey and rufous, indistinct subbasal, antemedial, postmedial, and submarginal waved lines, the postmedial line highly excurved beyond the cell, the orbicular represented by a speck, the rem-

form with slight black outline, a dark triangular patch on the costa before apex, with three rufous costal specks on it, cilia bright rufous. Hind wing dark fuscous, the cilia rufous. Underside fore wing with dark strim on the costa towards apex and ochreous streaks on the veins near outer margin, hind wing with cell-spot, curved postmedial line, and submarginal series of ochreous spots.

Hab Nilgiris Exp 26 millim

2098 Metachrostis emarginata, Hmpsn Ill Het viii, p 76, pl 145, fig 22

Dark violaceous grey, palpi blackish. Fore wing with indistinct subbasal line, a waved antemedial line angled at middle and arising from a chocolate spot on the costa, a large triangular medial costal patch, its outer edge defined by white and with a waved line arising from it, reniform large and ill-defined, the postmedial line highly excurved beyond cell and bent outwards towards inner margin, a large truncate triangular costal patch before apex, with three white costal specks on it, its outer edge defined by white, an irregularly waved submarginal line. Hind wing dark fuscous, underside with cell-spot and irregularly curved indistinct postmedial line.

Hab Simla, Nilgiris Evp 23 millim

Genus NARANGA

Naranga, Moore, P Z S 1881, p 359

Type, N diffusa, Wlk

Range Japan, Formosa, throughout India, Ceylon, and

Burma , Java

Palpi with the 2nd joint reaching above vertex of head and smoothly scaled, the 3rd minute, antennæ somewhat thickened, annulate, and minutely ciliated in male, thorax and abdomen without tufts. Fore wing with veins 7, 8, 9 stalked. Hind wing with veins 3 and 4 from cell or on a short stalk.

2099 Naranga diffusa, Wlk Cat xxxiii, p 779, C & S no 1814 Naranga quadrivittata, Moore, Lep Atk p 134, C & S no 1815 Naranga ferruginea, Moore, Lep Atk p 134, C & S no 1813

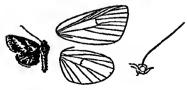


Fig 177 Naranga diffusa, 3

d Head, thorax, and abdomen brownish ochreous Fore wing bright straw-yellow, the basal area ferruginous red, a medial oblique ferruginous band, a broad marginal ferruginous band, cilia yellow Hind wing smoky black, the ciha yellow Underside dark fuscous, the costa of fore wing

and outer margin of both wings yellow

Q Paler yellow Fore wing without the basal red patch, the medial band narrow and somewhat indistinct, the marginal rufous markings reduced to an indistinct narrow oblique band from the apex. Hind wing and underside ochreous, sometimes suffused slightly with fuscous

The torm quadi wittatu has the medial band obsolescent from the

costa to vein 2

Hab Japan, Formosa, Dharmsála, Peninsulai India and Ceylon, Burma, Java $E\iota p$, $oldsymbol{3}$ 18, $oldsymbol{2}$ 22 millim

2100 Naranga cui vifera, Wik Trans Ent Soc 3rd ser 1, p 91, C' § S no 1906 Enastina seculifera, Wik Journ Linn Soc vii, p 58 Hyela senna, Swinh Trans Ent Soc 1891, p 148, pl 8, fig 14

Head, thorax, and abdomen pale brown Fore wing brown, a broad white costal band slightly suffused with brown and expanding in and beyond the end of cell, where it encloses a brown spot, a marginal brown-suffused white band Hind wing fuscous

Hab Ceylon, Rangoon, Borneo Exp 16 milim

2101 Naranga albistriga, Hinpsn Ill Het ix, p 96, pl 162, fig 4

P Head, thorax, and abdomen pale brown Fore wing pale brown, the basal half darkest and with oblique edge, a white fascia in the cell expanding into a triangular spot at end of it, remtorm indistrict and white, with a brownish centre, an indistrict white line from it to inner margin, a whitish subapical lumile bounding a dark patch on the margin Hind wing fuscous

Hab Ceylon Exp 26 millim

Genus RIVULA

Rivula, Guen Dup Cat Lep Eur p 206 (1844)

Type, R sericcalis, Schiff

Hange Nearctic, Palearctic, Oriental, and Australian regions Palpi poirect, the 2nd joint thickly scaled, the 3id minute, a sharp frontal tutt, antenne minutely chated, thorax and abdomen smoothly scaled, the typical section has the tibic of male nearly maked. Fore wing with the apex nearly rectangular, veins 7, 8, 9 stalked. Hind wing with veins 3 and 4 stalked.

- SLCT II Hand tibue of male with a small tuft of curved scales from extremity on outer side
- 2102 Rivula bioculalis, Moore, P Z S 1877, p 614, C § S no 3025 Hydrelia opalescens, Butl Ill Het vii, p 64, pl 129, fig 10 Hydrelia amipalpis, Butl Ill Het vii, p 64, pl 129, fig 8 Hydrelia pallida, Moore, Lep Ath p 197, C § S no 3028

RIVULA 335

Rivula trilineata, Moore, Lep Ath p 291 Meranda inconspicua, Butl Trans Ent Soc 1881, p 583

Yellow-brown, the palpi yellow Fore wing with a series of white specks on the costa, an indistinct, antemedial, highly angled line, two black specks at end of cell on a grey patch, a

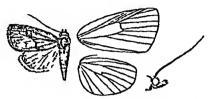


Fig 178 -Rivila bioculalis, &

postmedial waved line excurved round end of cell, a marginal series of black and white specks Hind wing suffused with fuscous

Trilineata = opalexiens is a large bright form with the post-medial line of fore wing almost straight from near apex to inner margin, auripalpis is smaller and very dark red-brown, the hind wing dark

Hab Himalayas, Khisis, Calcutta Nilgius, Ceylon, Burma,

Andamans, Borneo Exp 16-24 millim

2103 Rivula basalis, Hmpsn Ill Het vin, p 101, pl 148, fig 3

Head, thorax, and abdomen dark red-brown Fore wing with the basal area dark red-brown, bounded by a curved ochreous antemedial line, two dark specks at end of cell, an ochreous line from middle of costa, angled outwards to near apex, then oblique to inner margin, some pale specks on costa towards apex, a marginal series of black specks Hind wing dark fuscous

Some specimens are much paler, being greyish red-brown

Hab Nilgiris, Ceylon Erp 18 millim

SECT III Mid and hind tibiæ of male fringed with long hair

2104 Rivula renalis, Moore, Lep Ceyl 111, p 250, C & & no 3037

Head and thour ochieous brown, abdomen fuscous Fore wing ochreous brown, an antemedial series of black specks, a large black spot at end of cell an obliquely curved postmedial series of black specks, a marginal series of specks. Hind wing dark fuscous. Underside with the costa of fore wing ochreous, hind wing ochieous, with lumile at end of cell.

Hab Ceylon Exp 22 millim

2105 Rivula biatomea, Moore, P Z S 1883, p 29, C & S no 3034

on outer area, the base of costa dark, two black specks at end of cell, an indistinct curved submarginal series of dark specks, and

marginal prominent series Hind wing with the inner half fuscous brown, a marginal series of dark specks

Hab Nılgırıs, Ceylon Eap 28 mıllım

2106 Rivula ochracea, Moore, Lep Ath p 197, C & S no 3036 Rivula biatomea, Butl Ill Het vii, p 17 (nec Moore)

Q Bright straw-vellow Fore wing with two black specks at end of cell, a marginal series of minute specks. Hind wing suffused with fuscous

Hab Dharmsála, Calcutta Erp 16 millim

Genus TATHODELTA

Tathodelta, Hmpsn Ill Het 1x, p 135 (1893)

Type, T purpurascens, Hmpsn

Range Ceylon

Palpi upturned, reaching vertex of head, the 2nd joint thickly scaled, the 3rd minute, antennæ of male with long fasciculated cilia, thorax and abdomen smoothly scaled, the latter long with large anal fuft in male. Fore wing with the apex rounded, veins 7, 8, 9 stalked, 10, 11 stalked. Hind wing with veins 3, 4 stalked.

2107 Tathodelta purpurascens, Hmpsn Ill Het 1x, p 135, pl 168, fig 15

d Head and collar chestnut, thorax greyish fuscous, abdomen brown Fore wing brown, suffused with grey, traces of an antemedial waved line, two black specks at end of cell, a postmedial

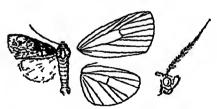


Fig 179 - Tathodelta purpurascens, d 1

line excurved round cell, traces of an irregular submarginal line, a marginal series of black specks Hind wing fuscous Hab Ceylon Exp 24 millim

Genus CINGALESA, nov

Type, C strigicosta, Hmpsn

Range Ceylon
Palpi upturned, the 2nd joint reaching vertex of head, the
3rd minute, thorax and abdomen without tufts Fore wing
with vein 6 absent, 8, 9, 10 stalked Hind wing with veins 3, 4
and 6, 7 stalked

2108 Cingalesa strigicosta, Hmpsn Ill Het ix, p 100, pl 162, fig 14

P Head and collar black, thorax yellowish white, abdomen fuscous Fore wing ochreous, costa black, with some black and white strige on it, subbasal and antemedial lines represented by a

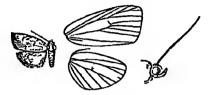


Fig 180 — Cingalesa strigicosta, o 1

few black scales, the postmedial black line indistinct and excurved round the traces of a brownish reniform, outer margin and cilia black, expanding into a patch below the apex. Hind wing and underside fuscous black, the latter with cell-spot and postmedial line to hind wing

Hab Cerlon Eap 20 millim

Genus PACHYLEPIS

Pachylepis, Feld Reis Nov, Erkl pls 75-107, p 7 (1864)

Type, P dilectissima, Wlk

Range S India, Ceylon, Burma, Borneo

Palpi upturned, short, smoothly scaled, and not reaching vertex of head, antennæ simple, somewhat thickened in the male, thorax and abdomen without tufts. Fore wing with the cilia non-crenulate, veins 7, 8, 9, 10 stalked. Hind wing with veins 3, 4 and 6, 7 from angles of cell

2109 Pachylepis dilectissima, Wilk Cat av, p 1751 Pachylepis limacodina, Feld Reis Nov pl 83, fig 12

Head and thorax bright ferruginous, the vertex of head, collar, and metathorax with sulphur-yellow patches, abdomen black with narrow white rings, and the anal tuft white. Fore wing

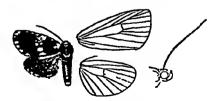


Fig 181 —Pachylep's dilectissima, of

ferruginous with a yellow patch, a series of costal specks. a medial series of spots consisting of a large spot on the costa, two towards inner margin, and two small spots at middle, a series of

large marginal and cilial spots and two specks on inner margin Hind wing black, with a series of white cilial spots Underside variegated with white

NOCTUIDE

The Bornean race has the outer of the two central spots of the

medial band larger

Hab Nilgiris, Ceylon, Borneo Exp, & 24, 9 30 millim

2110 Pachylepis dicycla, Wlk Cat xxxv, p 1964, C & S no 1833

Head and thorax bright sulphur-yellow and ferruginous, abdomen ochreous. Fore wing bright sulphur-yellow, the basal area variegated with ferruginous, a figure-of-8 mark at end of cell, outer area ferruginous, with a series of yellow triangular marginal marks and the cilia spotted with yellow. Hind wing white with broad fuscous marginal band. Underside whitish

Hab "N India", Rangoon Exp 24 millim

Genus EUBLEMMA.

Eublemma, Hubn Verz p 256 (1818)
Anthophila, Ochs Eur Schmett iv, p 93 (1816) (præccc)
Porphyrinia, Hubn Verz p 256 (1818)
Eronome, Hubn Verz p 256
Heliomanes, Sodoffsky, Bull Soc Nat Mosc pt x, p 16 (1837)
Micra, Guen Ann Soc Ent Fr x, p 225 (1841)
Mestleta, Wik Cat xxxiii, p 829 (1865)

Type, E respersa, Hubn, from Europe

Range N and S America, Africa, Palæarctic and Oriental

regions, Australasia

Palpi upturned and reaching just above vertex of head, the 3rd joint short, antennæ minutely ciliated in male, thorax and abdomen smoothly scaled, legs short, the tibiæ moderately hairy Fore wing with the apex somewhat produced and depressed, veins 6 and 7 from angle of cell, 8, 9, 10 stalked from before the angle Hind wing with veins 3, 4 and 6, 7 from angles of cell

Larvæ with two pairs of abdominal prolegs

SECT I Male with no pit in the membrane of fore wing towards apex, which is somewhat acute

2111 Eublemma bulla, Swinh P Z S 1884, p 518, pl 47, fig 9, C & S no 1880 Marimatha pura, Swinh P Z S 1885, p 456, pl 28, fig 16, C & S no 1868

3 Ochreous white Fore wing with a few black scales at middle and end of cell, near inner margin and at outer angle Hind wing pure white, fuscous towards outer margin in the Simla specimen

Hab Simla, Kaiáchi, Poona Exp 20 millim

- 2112 Eublemma pulchra, Swinh P Z S 1886, p 451, C & S no 2695
- d Head and collar ochreous white, thorax pale pink, abdomen pale fuscous. Fore wing pinkish white, some ochreous suffusion in and below the cell, some irregularly dentate white marks on the apical part of outer margin, defined inwardly by dark suffusion. Hind wing fuscous

Hab Mhow Exp 23 millim

2113 Eublemma amabilis, Moore, Lep Ceyl 111, p 54, pl 150, fig 12, C & S no 1909

Ochreous white Fore wing with antemedial diffused brown line, angled outwards in cell, the area beyond it suffused with pink except at costa, an irregularly dentate submarginal whitish line with diffused brown on its inner edge, the area beyond it slightly suffused with pink except at costa. Hind wing with the base pale, an indistinct antemedial brown line, a submarginal pale line excurved at centre, with a brown patch on its inner side and diffused pink beyond it

Hab Ceylon Erp 24 millim

2114 Eublemma virginea, Guen Noct in, p 248
Hypena quinquelinealis, Moore, P Z S 1877, p 612, C & S
no 2907

Head and collar bright orange-fulvous Fore wing white, more or less suffused with pink, the costa vellowish, two postmedial dark lines highly angled at vein 6, a white patch at apex with a pink spot on it, a pale marginal line Hind wing whitish

The specimen from Simila has the fore wing suffused with fuscous instead of pink, the apical spot brown, the hind wing pale fuscous, with indistinct postmedial line. The specimens from New Guinea and Australia have an indistinct submarginal line to the fore wing

Hab Sımla, Burma, Andamans, Java, New Guinea, Australia Exp 22 millim

2115 Eublemma polygramma, Dup 111, Suppl p 519, pl 44, 3 a, b Anthophila argillacea Eversm Faun Lep Volq-Ural 11, p 339 Thalpochares nuda, Christ Stettin Ent Zeit 1862, p 221

Differs from vinginea in being paler Fore wing with only one line, which is more acutely angled and white, the costa white Hind wing with a white medial line

Hub Europe, Dharmsála Evp 18 millim

2116 Eublemma acontioides, Moore, Lep Ath p 179, pl 5, fig 15, C & S no 2799

Mestleta interrupta, Moore, Lep Ceyl in p 209, pl 175, fig 7, C & S no 2805

Whitsh, the head and collar chestnut Fore wing with some black specks on the basal half, a diffused oblique brown band from the apex to centre of inner margin, a postmedial line from the costa to vein 3, an indistinct series of submarginal specks Hind wing with a brown patch on the centre of inner margin the outer margin suffused with fuscous

Hab Calcutta, Ceylon, Java Exp 16 millim

2117 Eublemma futilis, Swinh P Z S 1884, p 517, pl 47, fig 8, C & S no 1798

Q White Fore wing with a short subbasal line, waved anteand postmedial lines, the latter excurved round cell, the area between them fuscous, with a few rufous scales and dark lunule on discocellulars, the outer area suffused with fuscous Hind wing with the inner and outer areas suffused with fuscous

Hab Karáchi. Exp 16 milim

2118 Eublemma rosita, Guen Noct 11 p 245 Micra derogata, Wik. Cat x11, p 825, Moore, Lep Ccyl 111, pl 150, fig 18, C & S no 1881

Head, thorax, and abdomen ochreous white Fore wing with the basal area ochreous white, bounded by a very oblique fulvous line beyond which the area is bright pink, the outer margin white suffused with fulvous, two white spots near outer angle,

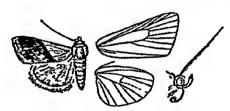


Fig 182 — Eublemma rosita, 3

with some black scales on their outer edge. Hind wing pale, suffused with fuscous towards outer margin, some specimens have the pink area somewhat restricted

Hab Arabia, throughout India and Ceylon, Formosa, Aus-

tralia Exp 14-18 millim.

2119. Eublemma reseana, Moore, P Z S 1881, p 370, C & S no 1896

Differs from rosita in the fore wing having the line inwardly bounding the pink patch curved, its outer edge bounded by a sinuous line excurred round end of cell, the white spots near outer angle absent

Hab NW Hinialayas, Sikhim, W and S India. Exp

14 millim.

2120 Eublemma rivula, Moore, Lep Ath p 140, C & S no 1895 Micra chalybea, Swinh P Z S 1884, p 518, pl 47, fig 10, C & S no 1900

Differs from roseana in having no pink between the medial oblique line and excurved postmedial line

Hab Peninsular India, Australia Exp 14 millim

2121 Eublemma parva, Hubn Eur Schmett, Noct fig 356
Thalpochares parvula, Moore, P Z S 1881, p 369, C & S
no 1893

Differs from rivula in the medial line of the fore wing being less oblique, the postmedial line less excurved beyond the cell Hab Europe, Bombay Eap 16-18 millim

2122 Eublemma albida, *Moore*, *P Z S* 1881, p 370, *C & S* no. 1890

Differs from rivula in the ground-colour being pure white, the submarginal line not bent inwards at costa and towards inner margin, but sinuous and angled inwards at vein 3

Hab Bombay Exp 14 millim

2123 Eublemma bifasciata, *Moore*, *P Z S* 1881, p 371, *C & S* no 1891

White, the collar ochreous Fore wing with the base of costa ochreous yellow, a broad yellow medial band, the outer area yellow with sinuous inner edge

Hab Allahabad Exp 12 millim

- 2124. Eublemma cretacea, Hmpsn Ill Het 1x, p 96, pl 162, fig 17
- Q Pure white, head and collar reddish brown Fore wing with a short subbasal fuscous line, a sinuous antemedial line, the medial area slightly suffused with grey, a postmedial line excurved round the reniform, which has a blackish outline, some submarginal patches of grey shading, a subapical black speck, some rufous on apical part of margin Hind wing with traces of postmedial, submarginal, and marginal diffused fuscous lines

Hab Ceylon Exp 18 millim

2125 Eublemma divisa, Moore, P Z S 1881, p 371, id Lep Ceyl. ni, pl 150, fig 10, C & S no 1882

Head, thorax, and abdomen pale bright yellow, the thorax slightly tinged with pink. Fore wing with the basal half yellow, bounded by a slightly oblique white and black line, beyond which the area is bright pink with a slight cupreous tinge, an indistinct slightly sinuous submarginal line. Hind wing yellow

The African form has the submarginal line of fore wing pure

white

Hab Accra, W Africa, Bombay, Sikhim, Bengal, Ganjam, Ceylon Exp 18 millim

342 ROCTUIDÆ

2126. Eublemma hemirhoda, Wik Cat xxxiii, p 799, C & S

Anthophila roseifascia, Wlh Cat xxxiii, p 803 Thalpochares adulans, Feld Reis Nov pl 108, fig 11

Bright ochreous yellow Fore wing with the outer half bright rosy pink, bounded inwardly by an oblique white line, a submarginal ochreous band not reaching the costa, cilia whitish at extremities Hind wing ochreous, fuscous towards outer margin, with patches of pink on vein 1 and at anal angle

Hab Ganjam, Ceylon, Java, N Gumea Exp 22 millim

2127. Eublemma olivacea, Wlk Cat xii, p 795, C & S no 1843 Anthophila nebulifera, Wlk Cat xxxiii, p 802, C & S no 1887

Ochreous white Fore wing slightly suffused with brown, traces of subbasal, antemedial, medial, and postmedial pale lines, a large triangular olive-green patch on the outer area, with an excision on its upper edge, above which is a black speck, and joined to an olive patch on the discocellulars, on which is a black line, some rufous suffusion above end of cell. Hind wing white, in some specimens suffused with fuscous towards outer margin.

Hab Punjab, Combatore, Ceylon Eap 22-26 millim.

2128. Eublemma obscura, Moore, Lep Atk p 178, pl 6, fig 10, C & S no 2795

Q Head and collar black-brown, thorax grey in front, reddish behind, abdomen fuscous with slight pale rings, reddish at base. Fore wing ochreous suffused with fuscous brown and with a slight reddish tinge, indistinct waved anter and postmedial lines, the area between them darker, the latter excurved to costa, where it has a white speck on it, some white specks on costa towards apex, traces of a sinuous submarginal line. Hind wing fuscous brown, with indistinct medial line, the area beyond it paler, a marginal ochreous line to both wings

Hab Sikhim Exp 24 millim

2129 Eublemma abrupta, Wil. Cat xxxiii, p 830, Moore, Lep Ceyl iii pl 174, figs 2, 2 a (larva), C & S no 2798

Pale red-brown, head and collar dark chestnut Fore wing with some dark specks in the cell, a postmedial chestnut line, which is highly angled at vein 6 and double from there to inner margin, two submarginal curved series of black and white specks, an apical pale patch, with some dark suffusion round it Hind wing with double oblique medial line, and postmedial and submarginal series of black and white specks. Underside grev, suffused with reddish and irrorated with black, the basal area of fore wing orange.

Larva reddish, with black streaks, lateral dots, and vellow transverse stripes, paired oblique white stripes across 9th and 10th

somites, the 5th, 6th, 7th, and 11th somites with dorsal prominences, the 3rd, 4th, and 5th each with four spatulate dorsal filaments. Food-plant Ficus. Pupa in a small cocoon attached to a leaf

Hab Bombay, Poona, Ceylon Exp 20 millim

2130 Eublemma angulifera, Moore, Lep Ath p 179, id Lep Ceyl in, pl 175, hgs 2, 2a (larva), C & S no 2800

Differs from abrupta in being suffused with purplish pink Wings with but faint traces of the two submarginal series of specks. Fore wing with no pale patch at apex. Underside bright otherous

Larva red-brown, without spatulate filaments Pupa in a small dark red cocoon

Hab Ceylon Exp 24 millim

- 2131 Eublemma duplexa, Moore, P Z S 1877, p 611, pl 60, fig 5, C & S no 2804
- Q Orange-yellow, with a brownish tinge Fore wing with faint antenedial and medial strigæ from the costa, a postmedial oblique brown line angled below the costa and with an ill-defined purplish-grey band beyond it, some submarginal blackish specks Hind wing with the oblique brown line medial, and the purplish band better defined

Hab Andamans Exp 22 millim

SECT II Fore wing with the apex produced into a slight lobe

- 2132 Eublemma quadrapex, Hmpsn Ill Het viii, p 91, pl 147, fig 15
- Q Bright yellow Fore wing with some dark specks in the cell, a postmedial line very highly angled at vein 6, with a sinuous line beyond it, the area between them purple, a pinkish-white patch on the costa before apex, which is purplish with a deep chestnut spot, a dentate submarginal line. Hind wing with an oblique medial chestnut band, with an irregularly dentate line beyond it, the area between them purple, traces of a submarginal series of black specks, cilia of both wings chestnut, the tips white with a bright pink line through them

Hab Nilgiris, E Pegu Erp 24 millim

- SECT III Male with the membrane of fore wing depressed, and forming a slight pit below the costa towards the apex
- 2133 Eublemma trifasciata, Moore, P Z S 1881, p 370, pl 38, fig 21, C & S no 1897

 Thalpochares quadrilineata, Moore, P Z S 1881, p 370, pl 38, fig 14, C & S no 1894

 Mestleta baccalia, Swinh P Z S 1886, p 452, pl 40, fig 7, C & S no 2801

 Mestleta fasciosa, Moore, Lep Ceyl in, p 552, pl 214, fig 12

d Head, thorax, abdomen, and fore wing greyish rufous, the last with antemedial, medial, postmedial, and submarginal almost straight oblique pale lines. Hind wing pale yellow, reddish towards outer margin

Hab Karachi, Mhow, Mahableshwar, Ganjam, Ceylon

Erp 22 millim

Genus TROCTOPTERA

Troctoptera, Hmpsn Ill Het ix, p 99 (1893)

Type, T erubescens, Hmpsn Range Khásis, Ceylon

Palpi slender and porrect, antennæ simple, the basal joint thickened, thorax and abdomen smoothly scaled. Forewing with the inner margin somewhat lobed towards base, vein 5 from above angle of cell, 7, 8, 9 stalked. Hind wing with the costa excised before apex, veins 3 and 4 stalked, 6 and 7 from upper angle of cell.

2134 Troctoptera erubescens, Hmpsn Ill Het ix, p 99, pl 157, fig 16

d Pinkish white Fore wing with the apical area nearly pure white, the pinkish area tinged with brown outwardly, a black

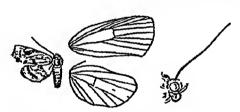


Fig 183 — Troctoptera erubescens, o

speck at centre of cell, a short reddish medial band between vein 2 and inner margin, traces of a curved submarginal line with two minute black specks on it at middle and another above a black patch on inner margin. Hind wing whiter, a rufous patch at middle of costa, with a quad-

nate white spot on it and a yellowish patch beyond it on the costa, a diffused submarginal rufous line

Hub Khásis, Ceylon Exp 20 millim

Genus ZAGIRA.

Zagna, Wlk Cat xxxv, p 1637 (1866) Gyrognatha, Hmpsn Ill Het 1x, p 134 (1893)

Type, Z acidaliaria, Wlk

Range Japan, throughout India, Ceylon, and Burma, Borneo, Australia

Differs from Eublemma in vein 8 of the fore wing being given off from 7 and anastomosing with 9 to form the arcole, the legs longer and more slender, palpi with the 3rd joint longer, abdomen with slight dorsal tufts

Larvæ with two pairs of abdominal prolegs

ZAGIRA 345

SECT I Palpi with the 3rd joint of moderate length, fore wing with vein 10 given off from the areole

2135 Zagira irrecta, Wik Cat xxxiii, p 1066, Moore, Lep Ceyl iii, pl 174, figs 1, 1 a (laixa), C & S no 2806
Selenis niviapex, Wik Cat xxxiii, p 1069
Selenis vacillans, Wik Journ Linn Soc vii, p 189
Selenis inæqualis, Wik Journ Linn Soc vii, p 189

Head and collar chestnut, thorax white, suffused with purplish grey, abdomen fulvous, wings red-brown, forewing with a broad white purplish-suffused fascia on the costal area, a postmedial whitish line highly angled at vein 6 and slightly sinuous towards inner margin, two black subapical specks on white or ochreous



Fig 184.—Zagira irrecta, o

spots, a white spot at apex and another on outer margin below the apex, a marginal series of black specks. Hind wing with indistinct irregularly sinuous medial and postinedial lines. Underside with the base of wings reddish.

The African and Indian forms

are darkest, the Bornean inequalis and vacillans are paler chestnut, the latter with the postmedial line of fore wing almost straight towards inner margin

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Larva purplish black, with short hairs, a dorsal hump on 11th

somite Pupa in a reddish cocoon

Hab W Africa, Natal, throughout India, Ceylon, and Burma, Andamans, Borneo Erp 24 millim

2136 Zagıra divisa, Wil. Trans Ent Soc (3) 1, p 107, Moore, Lep Ceyl 111, pl 174, fig 7, C & S no 2803 Selenis semilur, Wil. Cat rrain, p 1069 Selenis lauta, Butl Ill Het 11, p 44, pl 34, fig 1

Differs from *irrecta* in the colour being red-brown or black-brown, the head black or chestnut, the thorax and costal area of the fore wing pure white, or suffused with reddish ochreous, the subapical markings absent, the fascia being continued to the margin

Hab Japan, China, throughout India and Ceylon Exp 20

 $m_1 ll_1 m$

2137 Zagıra lunıfera, *Moore*, *Lep Ceyl* m, p 209, pl 175, fig 3, C & S no 2807.

Differs from niecta in the 3rd joint of palpus being longer, the thorax and costal fascia suffused with reddish ochreous, fore wing with the postmedial line bent inwards and broken up into a series of dark specks towards inner margin, a white lunule on the submarginal line below the subapical specks, the line being ochreous

and oblique from the lunule to inner margin, a dark dash from the lower end of lunule to outer margin. Hind wing with an ochreous curved submarginal line

Hab Aska, Ganjam, Ceylon Erp 26 millim

2138 Zagıra longipalpis, Wil. Cat xxxii, p 1068, C & S no 2794

Differs from lunifera in the ground-colour being black-brown, the costal fascia more suffused with otherous and continued almost to the margin, obliterating the subapical markings, a white spot instead of the lunule, a submarginal curved series of otherous specks Hind wing with a submarginal series of otherous specks Hab Moulmein Exp 26 millim

2139. Zagıra reticulata, Moore, Lep Ath p 178, pl vi, fig 9, C & S no 2796

Differs from *irrecta* in the head and collar being white. Fore wing with white lines along median nervure and discocellulars, enclosing a space at end of cell, a straight line thence to inner margin, the costal fascia not extending to the apex and connected by two white lines to a whitish patch, with three dark specks on it, on the outer margin, an indistinct line from the patch to outer angle. Hind wing with a ring-mark at end of cell, a medial line excurved round end of cell, a submarginal line.

Hab Dalhousie, Sikhim Exp 24 millim.

2140 Zagıra multiguttata, Moore, Lep Ceyl III, p 210, pl 174, fig 8, C & S no 2808

Bright red-brown, head and collar deep chestnut; a white line behind the collar, abdomen with white specks. Fore wing with traces of antemedial and postmedial waved lines with minute white specks on them, a white spot at centre of cell and larger spot at end of it, submarginal and marginal series of white specks, a white spot at apex and two subapical spots. Hind wing with a few white specks on the basal area and very numerous spots on the outer half

Hab Nágas, Ceylon Eup 20 millim

2141 Zagira contentaria, Wil. Cat xxii, p 639
Chusaris punctilinealis, Wil. Cat xxiiv, p 1175, Hmpsn Ill
Het ix, pl 167, fig 27, C & S no 2935

Ochreous, suffused with rufous and irrorated with black, the frons white Fore wing with black speck at base, an indistinct waved antemedial line, two white-ringed black specks at end of cell, a postmedial series of white specks incurved below end of cell. Hind wing with black speck in cell, curved postmedial series of white specks, both wings with marginal series of black specks.

Hab Nilgiris, Ceylon, Borneo Exp 22 millim

SECT II Palpi with the 3rd joint minute, fore wing with vein 10 given off after the areole

2142 Zagıra acıdalıarıa, Wil. Cat xxxv, p 1638 Gyrognatha atııceps, Hmpsn Ill Het 1x, p 134, pl 168, fig 10

d Differs from punctilinealis in being pinkish brown, the head black. Hind wing with two black specks at end of cell, an ochreous patch on postmedial line at inner margin

Hab Ceylon, Borneo Erp 24 millim

Genus CORGATHA

Corgatha, Wik Cat xvi, p 215 (1858) Zitna, Wik Cat xxii, p 1276 (1865)

Type, C zonalis, Wlk

Range Japan, Sikhim, Manipur, Nilgiris, Ceylon, Borneo Differs from Zagira in the palpi being porrect, the 2nd joint triangularly scaled, the 3rd minute, abdomen not tufted

SECT I The outer margin of fore wing not excised below apex nor angled at centre, of hind wing not angled at centre

2143 Corgatha rubra, Hmpsn Ill Het viii, p 92, pl 147, fig 16

Buck-red, head with a whitish band between the base of

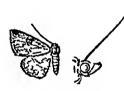


Fig 185 Corgatha rubra, & } antennæ Foie wing with the costa blackish, white at apex, a black speck at end of
cell, a pale postmedial line slightly curved
below the costa, a marginal series of black
specks Hind wing with black speck at
end of cell, a pale straight medial line, a
marginal series of black specks Underside
whitish

Hab Nilgiris Erp 24 millim

2144 Corgatha zonalis, Wik Cat xvi, p 216, Hmpsn Ill Het ix, pl 167, fig 16, C & S no 2934

Q Differs from rubra in being paler, an oblique antemedial pale line, the postmedial line more curved and less angled below costa. Hind wing with the line postmedial instead of medial.

Hab Ceylon Exp 14 millim

2145 Corgatha costinotalis, Moore, P Z S 1867, p 83, C & S no 2870

Capnodes minor, Moore, Lep Ceyl in, p 212, pl 174, fig 11, C & S no 2779

Brick-red Fore wing with subbasal, ante- and postmedial white spots on the costa with dark edges, traces of antemedial, medial, and postmedial waved dark lines, a marginal series of black specks Hind wing with ante- and postmedial indistinct waved lines Underside pale, with indistinct cell-spot and postmedial line to both wings

Hab Sikhim Exp 24 millim.

SECT II Fore wing with the outer margin excised helow apex and angled at centre

A Hind wing with outer margin slightly angled at centre

2146 Corgatha excisa, n sp

6 Red-hrown suffused with grey Fore wing with the veins grey, an antemedial pale line angled below the costa a dark spot at end of cell, a postmedial pale line excurred beyond cell, an indistinct in regularly sinuous submarginal line and almost marginal series of dark specks. Hind wing with the veins grey, a straight postmedial pale line, sinuous submarginal and almost marginal series of dark specks. Underside with the disk of fore wing red. Hab. Mao, Manipur (Doherty). Exp. 22 millim. Type in coll Elwes.

B Hind wing with outer margin highly angled at centre

2147 Corgatha falcatalis, n sp

P Dark red-brown Fore wing with traces of an antemedial dark line. a diffused oblique medial line, a postmedial waved line excurved beyond cell a dark patch at apex and another at outer angle Hind wing with indistinct waved antemedial and medial lines, the apical area suffused with black.

Hab Sikhim (Moller) Exp 22 millim Type in coll Elwes

Genus ORUZA.

Oruza, Will Cat vxiv, p 1080 (1862) Arasada, Moore, Lep Ceyl in, p 168 (1884)

Type, O costata, Wlk

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Range Sikhim, Calcutta Ceylon, Burma, Java

Palpi upturned reaching vertex of head, the 2nd joint hairy in front, the 3rd minute, antennæ of male ciliated and with hristles at the joints, thorax and abdomen slightly scaled. Fore legs with the femora and thiæ hairy; hind legs of male with the tibiæ and tarsi fringed with hair on the outer side, the spars very long and fringed with short scales, hind legs with the tibiæ and tarsi fringed with long hair on both sides and the spurs with scales. Fore wing rather elongate, the apex rounded, vein 8 anastomosing with 9 and 10 to form the areole. Hind wing with veins 3 and 4 stalked.

Lana with two pairs of abdominal prolege

- 2148. Oruza pyraliformis Moore, Lep Ceyl 111, p 189, pl 172, figs 1, 1 α (lar.a), C § δ no 2328
- d Brownish otherous, head and collar brown Wings irrorated with black scales, fore wing with the costa whitish and with three dark specks towards apex, dentate ante- and postmedial

ORUZA 349

indistinct dark lines, the latter oblique, two dark specks at end of cell, a series of submarginal dentate dark spots and three black subapical spots, a marginal series of black specks. Hind wing similar, but without the antemedial line, the postmedial line with ochreous outer edge

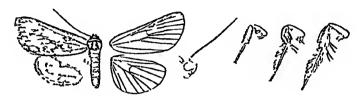


Fig 186 — Oruza pyraliformis, &

Larva with the head large and produced upwards, colour green with a dorsal yellowish band, lateral streaks and the stigmata yellow, head and sides of thoracic somites black speckled. 1st somite with lateral purple-brown streaks, a blackish line between 4th and 5th somites, some blackish lateral marks on terminal somites. Pupates in a rolled-up portion of leaf

Hab Ceylon, Java Exp 38 millim

*2149 Oruza ruptifascia, Moore, Lep Ath p 200

Pale pinkish brown, the head brown Fore wing with indistinct oblique antemedial line, a spot at end of cell, an oblique slightly curved postmedial line, traces of a submarginal line with two black-brown spots on it below costa. Hind wing with traces of an antemedial line, a dark speck at end of cell, a double postmedial dark line filled in with white, two submarginal fuscous blotches, one near apex, the other towards inner margin, both wings with marginal series of black specks.

Hab Calcutta Eap 24 millim

*2150 Oruza fratercula, Moore, Lep Ath p 290

Pale red-brown Fore wing with small ring-spot at lower angle of cell, indistinct slightly curved postmedial line and two almost straight submarginal lines, the outer obsolete towards costa Hind wing with speck at end of cell and three indistinct slightly curved lines on outer area both wings with marginal series of dark specks

Hab Calcutta Exp 24 millim

2151 Oruza albicosta, n sp

Q Differs from pyraliformis in being reddish ochieous brown, a white line behind the collar and white fascia on costa of fore wing, the ante- and postmedial lines yellow and waved, a white black-ringed speck at lower angle of cell, an irregular submarginal series of yellow spots with a black spot towards outer angle

instead of the dentate marks. Hind wing with the two black specks at end of cell prominent, the medial line nearly straight and edged by disconnected white marks.

Hab Burms Exp 28 millim Type in B M

2152 Oruza fasciosa, Moore, Lep Ath p 290, pl viii, fig 21

Q Differs from albicosta in being much more orange Fore wing with the costa narrowly white, the cell suffused with fuscous, the lines replaced by ill-defined bands, a dark oblique band from below apex to inner margin. Hind wing with one black speck at end of cell, the medial line yellow with dark suffusion inside it, two indistinct dark lines on outer area.

Hab Sikhim Erp 36 millim

2153 Oruza anisodoides, n sp

Q Ochreous yellow, head, collar, and fore femora and tabine black, a red line across the thorax, abdomen irrorated with black, the terminal segments with pale rings. Fore wing with grevish costal fascia, double ante- and postmedial and single submarginal and almost marginal waved reddish lines, a white black-ringed spot at end of cell, a marginal series of black specks. Hind wing with a black speck at end of cell, a straight medial oblique black line with white outer edge, indistinct postmedial and submarginal lunulate lines, a series of marginal black specks.

Hab Ceylon (Green) Exp 30 millim Type in B M

2154 Oruza lycaugesaria, Swinh Trans Ent Soc 1890, p 232

Q Differs from anisodoides in being whiter. Fore wing with a dark vinous streak below the costa towards apex, an oblique streak across outer angle, no ring-spot at end of cell. Hind wing much suffused with pink and purplish fuscous some yellow beyond the white of the medial band; a dark oblique streak below the apex.

Hab Rangoon Exp. 26 millim

2155 Oruza costata, Wil Cat xxiv, p 1089, C \$ 8 no 3688

Q Deep ferruginous red. Fore wing with an ochreous costal fascia and some fuscous below it, oblique ante- and postmedial ochreous lines with fuscous inner edges, a finer submarginal line oblique from the costa to vein 4, then dentate to inner margin Hind wing with an ochreous line on the discocellulars, a nearly straight medial line and submarginal line similar to that on fore wing, the veins of both wings pale

Hab "India" Eap 26 millim

2156 Oruza pallescens, n sp

Q Brownish ochreous, head fuscous Fore wing with a dark subcostal fascia, a black and white speck at lower angle of cell, an oblique line from lower angle to inner margin, an oblique band from outer margin below apex to inner margin, with a black speck above it and speck beyond it at outer angle. Hind wing with oblique medial diffused fuscous band and line just beyond its outer edge, a fuscous submarginal band with series of dark specks beyond it

Hab Calcutta. Exp 23 millim Type m B M

Genus PSEUDACIDALIA, nov

Type, P albicosta, Moore Range Ceylon, Burma

Q Palpi long, naked, and slender, the 2nd joint reaching above vertex of head, the 3rd long, antennæ minutely ciliated, thorax and abdomen smoothly scaled tibiæ not hairy. Forewing broad, the apex nearly rectangular, veins 7, 8, 9, 10 stalked. Hind wing with vein 5 from below centre of discocellulars.

2157 Pseudacidalia albicosta, Moore, Lep Ceyl iii, p 232, C & S no 3039

Q Red-brown, the head dark, collar fringed with white

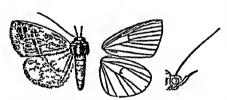


Fig 187 —Pseudacidalia albicosta, Q

Fore wing with the costa white, a dark speck at lower angle of cell, an indistinct oblique postmedial line, traces of a waved submarginal line, a maiginal series of dark specks Hind wing with a medial pale line

Hab Ceylon Exp 34 millim

2158 Pseudacidalia undulata, n sp

Q Differs from albicosta in being rather paler brown Fore wing with traces of a waved antemedial line, the postmedial line waved, a dark speck at middle of cell Hind wing with indistinct waved ante- and postmedial pale lines

Hab E Pegu (Doherty) Exp 28 millim Type in coll Elwes

Genus MICRÆSCHUS

Micræschus, Butl Ann M N H (5) 1, p 402 (1878)

Type, M elatarius, Wlk

Range Ceylon, Assam Hills, Burma

Palpi very slender and obliquely upturned, reaching vertex of head, antennæ with fasciculated cilia in male, thorax and abdomen without tufts, legs naked, with the spurs normal Fore wing with veins 7, 8, 9, 10 stalked Hind wing with veins 3 and 4 stalked Larvæ with two pairs of abdominal prolegs

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SECT I Fore wing with the outer margin slightly angled at vein 8

2159 Micræschus elatarius, Wil. Cat xxu, p 665, C & S no 3965

Pale vellow, speckled with crimson, the head and collar chest-Fore wing with the costa greyish and with a dark fascia below it to end of cell, then bent downwards to the outer margin at vein 3, the costa and fascia irrorated with metallic scales, indistinct anteinedial, medial, and postmedial waved crimson lines, a submarginal irregular series of white spots on the apical area Hind wing with traces of medial and postmedial crimson lines, a white spot at end of cell, some white submarginal spots on apical area, both wings with dark marginal line irrorated with metallic scales, the cilia orange

Hab Cevlon Exp 12 millim

2160 Micræschus rosellus, Hmpsn Ill Het ix, p 126, pl 170, fig 17

Differs from elatarius in the dark margins, and also in the costal streak and fascia of fore wing being much narrower, the submarginal white spots of both wings very large, with a large additional spot on each wing towards inner margin

Hab Ceylon Erp 14 millim.

SECT II Fore wing with the outer margin evenly rounded

2161 Micræschus oblatarius, Will Cat xxu, p 665, Moore, Lep Ceyl m, pl 200, fig 6, Hmpsn. Ill Het 1x, pl 176, fig 17 (larva), C & S no 3966

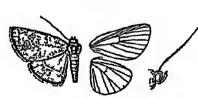


Fig 188 Micræschus oblatarius, J

Bright brick-red; the vertex of head white Fore wing irrorated with dark specks, the costa dark, with white specks on it, very indistinct ante- and postmedial pale lines, sometimes speckled with black, and with a black blotch between them on inner margin, a dark speck at

end of cell Hind wing with a speck at end of cell, pale anteand postmedial lines, a dark marginal line irrorated with metallic scales to both wings

P Fore wing with the basal and outer areas paler than the

medial, and a distinct dentate submarginal line.

Larva smooth and cylindrical, covered with comminuted lichen arranged in tufts on certain somites Cocoon covered with luben and suspended by a cable of silk

Hab Ceylon. Exp, & 16, 2 20 millim.

2162 Micræschus regulatus, Wik Cat. xxiii, p 794, C & S no 3946

Differs from oblatarius in having an oblique diffused sub-basal line to the fore wing, a black spot at end of cell, the postmedial line of both wings whiter and more regular, no dark costal and marginal lines irrorated with metallic scales

Hab Moulmein Eip 16 millim

- 2163 Micræschus minutus, Hmpsn Ill Het ix, p 150, pl 169, fig 18
- 3 Red-brown, frons chestnut, shaft of antennæ and a band between their bases white. Fore wing with two oblique dark medial lines from the costa to cell, some specks towards apex. Hind wing with a rufous band on discocellulars, an irregularly waved postmedial ochreous line.

Hab Ceylon Exp 14 millim

- 2164 Micræschus roseus, Hmpsn Ill Het ix, p 150, pl 169, fig 3
- 2 Bright pink, the vertex of head white, both wings with traces of a dark speck at end of cell and irregular postmedial line, a dark marginal line, the cilia bright yellow

Hab Ceylon Eap 20 millim

- 2165 Micræschus ustipennis, n sp
- Q Brick-red, the vertex of head white Fore wing with dark ante- and postmedial lines, the latter excurved beyond cell, a dark spot at end of cell, the costa and outer margin dark Hind wing with dark ante- and postmedial lines, the outer margin dark

Hab Nagas (Doherty) Eup 20 millim Type in coll Elwes

- 2166 Micræschus gemmifer, n sp
- o Dull brown, irrorated with black. Fore wing with the costa black, irrorated with a few metallic scales, dark spots in and at end of cell, a black submarginal line with a series of metallic blue spots on it and a dark subapical spot. Hind wing with traces of ante- and postmedial waved lines, a black submarginal line with a series of metallic blue spots on it.

Hab E Pegu (Doherty) Exp 16 millim Type in coll Elwes

Subfamily PALINDIINÆ

Palpi slender and closely appressed to the frons Scaling very smooth and shining Fore wings with veins 8 and 9 almost always forming an areole Hind wing with vein 5 fully developed and usually from or from near lower angle of cell, rarely from near centre of discocellulars

Larvæ with four pairs of abdominal prolegs and not semi-looping

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Key to the Genera.

A Hind wing with vein 5 from near lower angle of cell or well below centre of discocellulars

a Fore wing with the inner margin not arched

a' Fore wing with the outer margin slightly angled from vern 5 to outer

b' Fore wing with the outer margin

evenly rounded

a² Abdomen without dorsal tufts a3 Fore wing with the inner margin curved, the apex rectan-

gular δ³. Fore wing with the inner mar-

gin nearly straight a Fore wing with the apex

rounded b4 Fore wing with the apex

rectangular

b2 Abdomen with dorsal tufts

c³ Palpi reaching above vertex of head, abdomen with a series of tufts

do Palpi hardly reaching vertex of head, abdomen with one dorsal tuft

b Fore wing with the inner margin much arched

c' Fore wing with the outer margin angled, yeins 8 and 9 anastomosing to form an areole

d' Fore wing with the outer margin rounded

c2 Fore wing with veins 8, 9, 10

stalked d^2 Fore wing with veins 8 and 9 anas-

tomosing to form an areole B Hind wing with vein 5 from centre of

discocellulars, fore wing with raised bosses of metallic scales

3 RAMADASA, p 357

4. Westermannia, p 358.

Callyna, p 355

BREVIPECTEN, p 361

1 DINUMMA, p 354

6 Bryophilopsis, p 361

9 PTEROGONIA, p 362

8. Doranaga, p 362

5 Nagasena, p 360

10 Homodes, p 364

Genus DINUMMA

Dinumma, Wlh Cat xv, p 1805 (1858)

Type, D placens, Wlk

Range Japan, China, NW Himalayas, Nilgiris, Ceylon,

Burma, Java

Palpi smoothly scaled and upturned, the 2nd joint reaching just above vertex of head, the 3rd of moderate length Antenna minutely ciliated Thorax smoothly scaled Abdomen with a series of dorsal tufts Tibiæ moderately hairy. Fore wing of nearly even width throughout, the apex and outer margin rounded Hind wing with vein 5 from lower angle of cell

2167 Dinumma placens, Wil. Cat xv, p 1806, Moore, Lep Ceyl 111, pl 156, fig 11, C & S no 2396
Dinumma varians, Butl Ill Het vii, p 73, pl 131, figs 9, 10

d Head and thorax purplish black, abdomen fuscous, with the dorsal tufts black. Fore wing red-brown suffused with purplish black, a black basal patch waved anter and postmedial lines, the latter angled beyond cell, the area between them black, with a deeper black spot at end of cell, a subapical black and whitish spot on outer margin, with fine blue streaks across it, a similar spot, but with no whitish, above outer angle. Hind wing fuscous

Q with the antemedial and outer areas of fore wing redder Hab Dharmsála, Nilgiris, Ceylon, Rangoon Evp 26-34 millim

2168 Dinumma deponens, W7L Cat xv, p 1806, C & S no 2394 Dichonia bipunctata, Metsch Et Ent 1860, p 32 Dinumma laigeteau, Oberth Et Ent x, p 28, pl 11, fig 7

Differs from placens in the antemedial and outer areas of the fore wing being puiplish red-brown in both sexes, the basal patch and medial band deep black, the latter with the inner edge



Fig 189 - Dinumma deponens, &

more smuous, the outer more irregular, and with a purplish line beyond it, black patches on outer margin below apex and at centre without blue lines on them

Hab Japan, China, Dharmsála Exp 40 millim

Genus CALLYNA.

Oallyna, Guen Noct 1, p 112 (1852) ? Calymera, Moore, Lep Ath p 104 (1882)

Type, C siderea, Guen

Range S Africa, Japan, throughout India, Ceylon, and Burma, Andamans

Palpi slender and closely appressed to from, the 3rd joint reaching just above vertex of head. Antennæ of male minutely culiated,

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thorax and abdomen smoothly scaled Fore wing of nearly even breadth throughout, the apex and outer margin rounded Hind wing with vein 5 from below centre of discocellulars

169 Callyna siderea. Guen Noct 1 p 113 C & S no 2393

Head thorax and abdomen black, the last with the terminal segments orange, the legs marked with orange. Fore wing shining black two orange specks near base and two on costa before middle, the outer with a black line from it to vein 1 the orbicular and remform large with black outlines and centres the claviform black, with a line through it, a white postmedial spot on costa, with a curved line from it to inner margin with some white specks beyond it some white specks on costa towards apex an apical white patch tinged with vellow a submarginal series of white specks and marginal series of orange specks. Hind wing fuscous black, with the apex white

Hab Dharmsals, Sylhet, Poona Exp 31-12 millim

2170 Callyna monoleuca, WW. Cat xx p 1667, C & S no 2391

Head, thorax, and fore wing deep chocolate—the last with five indistinct waved lines, the postmedial line excurved round cell some white specks on costa; a white vellow-tinged apical spot. Abdomen and hind wing fuscous with a cupreous tinge—Underside with curved postmedial line to both wings

Hab Sikhim, Assam, Canara; Nilgiris, Ceylon Eip 42-50 millim

2171 Callyna jugaria, Will Cat vr p 1809, Hapen Ill Het iv, pl 163, fig 20 C & S no 2390 Callyna semivitri, Moore Lep Ath p 161 C & S no 2392

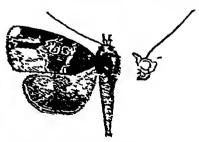


Fig 190 — Callyna 71 g ria, 6

Head and thorax purplish redbrown, in some specimens the head is grevish and the coll ar black-brown abdomen fuscous. Fore wing deep chestnut-redthe inner area and a subapical streak purplish grev, a short subbasal ochreous or grey double line, a broad medial ochreous or grey-speckled band more or less obsolete towards inner margin,

bounded by waved ante- and postmedial lines, the latter ingled beyond the cell, and with the orbicular and renitorm spots on it large and often white-edged, an apical white patch a similar submarginal line. Hind wing fuscous, with the cilia whitish below apex.

ł

Hab Throughout India and Ceylon; Andamans E_{ip} 48-68

millim

2172 Callyna mystica, Wik Cat xv, p 1807, C & S no 2395

Differs from jugaria in being duller chestnut-red. Fore wing with the basal costal area reddish ochreous, no pale suffusion on medial band below the cell, the orbicular and reniform stigmata minute, the postmedial line straight from the costa to angle beyond cell. Hind wing without the white patch on cilia. Underside without the apical white patch to fore wing

Hab Moulmein Eip 40 millim

2173 Callyna costiplaga, Moore, Lep Ceyl in, p 100, pl 156, fig 10, C & S no 2389

Head dark red-brown, collar black, thorax and abdomen brown Fore wing brown with indistinct subbasal, antemedial, postmedial, and submarginal waved lines, large quadrate black costal patches between the two former and the two latter, the orbicular and leniform indistinct. Hind wing dark fuscous, the cilia ochreous Hab Bombay, Nilgiris, Ceylon. Exp. 46 millim

- *2174 Callyna? picta, Moore, Lep Ath p 104, pl 1v, fig 7, C & S. no 1787
- A Head and thorax pale fuscous, with darker spots, abdomen pale fuscous. Fore wing pale brownish ochreous, a dark spot at base and two medial lines from cell to inner margin, a large chestnut postmedial patch from costa to near inner margin, its lower part suffused with purple, and with a whitish lumile on the discocellulars, a brown line on its outer edge, bent outwards to the outer angle, a marginal series of fuscous spots. Hind wing dark fuscous

Hab Sikhim Erp 40 millim

Genus RAMADASA.

Ramadasa, Moore, P Z S 1877, p 603 Baorisa, Moore, Lep Ath p 133 (1882)

Type, R pavo, Wlk

Range Sikhim, Ceylon, Andamans

Palpi naked and upturned, flattened and reaching vertex of head, the 3rd joint minute, antennæ simple, thorax and abdomen smoothly scaled, tibiæ without spines and slightly clothed with hair. Fore wing with the outer margin oblique from vein 5 to outer angle, veins 8 and 9 anastomosing to form an areole

- SECT I (Ramadasa) Fore wing of male with veins 3, 4, 5 curved at their bases, the membrane in the cell and interno-median interspace slightly ridged, probably for stridulation
- 2175 Ramadasa pavo, Wlk Cat ix, p 147, Moore, Lep Ceyl in, pl 149, fig 1, C & S no 1784

Head and thorax clothed with grey brown-mottled scales, the

frons barred with orange and metallic blue-black, the abdomen orange. Fore wing with the basal area grey, mottled with brown, the costa orange, with five blue-black spots, an oblique medial

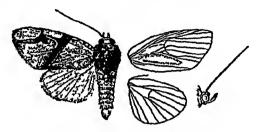


Fig 191 -Ramadasa pavo, of 1

black line with vinous suffusion on its outer edge, the outer area pale chestnut, the reniform large and incomplete, outlined on its upper and inner sides by black and violet, the upper part of its outer edge by a black line, terminating in a red speck with two black specks below it, a black striga from the costa to the reniform, and a blue-black band beyond it from the costa to vein 6, where it is bent outwards to the margin as a streak, a series of black and white submarginal specks. Hind wing orange

Hab Sikhim, Ceylon, Andamans Eap, & 45, 2 50 millim

SECT II (Baorisa) Fore wing of male without the ridged membrane and distortion of nervules

2176 Ramadasa hieroglyphica, Moore, Lep Ath p 133, pl 17, fig 14, C & S no 1788

Pure white Frons with a black bar, thorax with a few black specks Fore wing with five metallic blue-black strige from the basal half of costa, increasing in length outwardly, a diffused yellow fascia on median nervure, two metallic specks below the cell, a postmedial metallic mark from the costa shaped like the letter A and followed by a V-shaped mark, a submarginal line, terminating in three radiating lines, which end in a brown and crimson blotch near the middle of outer margin, with four white specks on it and two metallic lines below it Legs and underside of abdomen spotted with metallic blue-black.

Hab Sikhim Exp 50 millim.

Genus WESTERMANNIA.

Westermannia, Hubn. Zutr 11, 23 (1823) Plusiodes, Guen Noct 11, p 385 (1852)

Type, W superba Hubn Range Western and Southern India, Ceylon; Assam, Andamans, Java, Australia Palpi slender and closely appressed to the frons, the 3rd joint naked and reaching just above vertex of head, antennæ of male almost simple, thorax and abdomen smoothly scaled, tibiæ not hairy and without spines. Fore wing with the apex nearly rectangular. Hind wing with vein 5 from below centre of discocellulars.

2177 Westermannia superba, Hubn Zutr Samml exot Schmett p 23, figs 323, 324, Moore, Lep Ceyl 111, pl 154, figs 1, 1 a (laiva), C & S no 2150 Plusiodes westermanni, Guen Noct 11, p 386



Fig 192 — Westermannia superba, 3 1

Head pure white, thorax and abdomen vellowish white Fore wing pale silvery brown, the basal costal area and a broad postmedial curved band white, these two white areas being conjoined at costa, and by the discocellulars and median nervure being white Hind wing pale, suffused with fuscous towards outer margin

Larva Pale olive-green, thickly spotted with yellow, a yellow dorsal line on each segment, genæ with a small red streak Foodplant, Terminalia

Hab W and S India, Ceylon, Java Erp 36 millim

2178 Westermannia argentea, Hmpsn Ill Het viii, p 80, pl 146, fig 19

Differs from super ba in the tegulæ and metathorax being white Fore wing bright silvery grey, with a broad white fascia on inner basal area, the disk tinged with gold. Hind wing opalescent white, fuscous towards outer margin

Hab Nilgiris Exp 50 millim

2179 Westermannia triangularis, Moore, P Z S 1877, p 605, C & S no 2151

Head and thorax white, abdomen fuscous Fore wing white, with a medial fuscous band from median nervure to inner margin, with a diffused fuscous streak from it to base along median nervure, the outer area coppery brown, with the margin blue-grey Hind wing white, fuscous towards outer margin

Hub Assam, Andamans Eup 36 millim

- 2180 Westermannia cornucopia, Hmpsn Ill Het viii, p 61, pl 141, fig 12
- Q Pale brown, head and thorax with black tips to the scales Fore wing with a large chocolate cornucopia-shaped mark from the outer margin to centre of inner margin, some white on its inner edge, two fine silvery lines on the discocellulars, and a fine

silvery sinuous line beyond the cell, with silvery suffusion between it and the discocellulars, traces of a curved submarginal line Hind wing fuscous

Hab Nilgiris Exp 34 millim

Genus NAGASENA.

Nagasena, Moore, Lep Atk p 151 (1882)

Type, N albescens, Moore

Range Sikhim, Assam, Ceylon, Andamans
Palpi slender and naked, the 3rd joint reaching above vertex of head, antennæ with long cilia in male, thorax and abdomen smoothly scaled, except for a slight tuft on 1st segment of latter, tibiæ moderately hairy. Fore wing with the apex somewhat rounded, the inner margin lobed near base, the ietinaculum barshaped in male Hind wing with vein 5 from lower angle of cell

2181. Nagasena albescens, Moore, Lep Atk p 152, C & S no 2152

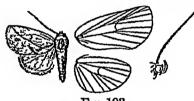


Fig 193 Nagasena albescens, 3

Head and collar white, thorax and abdomen brownish wing whitish, suffused and irrorated with blown, a minute rufous speck at upper angle of cell, a curved rufous line from apex to inner margin near base, traces of a submarginal series of

specks Hind wing pale, suffused with fuscous Hab Sikhim, Margharita, Assam Exp 30 millim

2182 Nagasena dentilinealis, Moore, P Z S 1877, p 613, pl 60, fig 7, C & S no 2871

d Differs from albescens in being whiter, a dark speck at end of cell of fore wing the line from apex brown, waved, and reaching centre of inner margin Hind wing fuscous

Hab Andamans Exp 28 millim

2183 Nagasena trapezata, Moore, Lep Ceyl 111, p 547

Fore wing with very oblique Pale brownsh ochreous antemedial brown line, an obliquely curved medial line, sending a streak from end of cell to outer margin below apex, crossing an angulated submarginal line Hind wing semihyaline, slightly suffused with fuscous towards outer margin

Hab Ceylon Eap 34 millim

Genus BRYOPHILOPSIS, nov

Type, B quiseata, Hmpsn Range NW Himalayas

Palpi slight and reaching vertex of head, antennæ with long clim in male, metathorax slightly tufted, abdomen with a dorsal tuft on 2nd segment, tibiæ nearly naked. Fore wing with the outer margin obliquely rounded, veins 8 and 9 anastomosing to form an areole. Hind wing with vein 5 from lower angle of cell

2184 Bryophilopsis griseata, n sp

Head and thorax grey, abdomen pale Fore wing grey, an

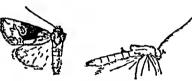


Fig 194
Bryophilopsis griscata, &

antemedial obliques lightly-waved line joined by a streak below vein 2 to a postmedial line, which is bent outwards below costa, the reniform large and indistinct, the area inside and below it, between the streak and ante-and postmedial lines, often black, a sinuous submarginal line angled

outwards to margin below the centre Hind wing pale fuscous Hab Simla (Harford) Exp 26 millim Type in B M

Genus BREVIPECTEN, nov

Type, B captatus, Butl

Range W and S Atrica, China, NW Himalayas, Nilgiris,

Ceylon

Palpi slight and reaching vertex of head, antennæ of male bipectinated to three-fourths length, the branches long thorax and abdomen smoothly scaled, tibiæ with slight tufts of hair on the outer side. Fore wing with the apex rectangular, the inner margin nearly straight after the basal lobe, veins 8 and 9 anastomosing to form an areole. Hind wing with vein 5 from above angle of cell.

2185 Brevipecten captatus, Butl Ill Het vii, p 79, pl 133, fig 1

Brownish grey Fore wing with short subbasal line, an antemedial oblique line, a large triangular medial deep chocolate



Fig 195—Brewpecten captains, 3 1

patch with white edges extending to lower angle of cell, with a simious line from it to inner margin where it joins the highly excurved postmedial line, which has a triangular chocolate patch with white edges on the costa beyond it. Some specimens have three dark specks beyond lower angle of cell. Hind wing fuscous brown

Hab China, NW Himalayas, Nilgins Erp 32 millim

2186 Brevipecten lumifer, Hmpsn Ill Het ix, p 113, pl 160, fig 13

d Differs from captata in the lines of the fore wing being less distinct, a large whitish reniform mark, obliterating the greater part of the triangular medial patch, the apex of the triangular patch before apex truncate Hind wing ochreous

Hab Trincomali, Ceylon Exp 24 millim

Genus DORANAGA.

Doranaga, Moore, Lep Ceyl III, p 553 (1884)

Type, D leucospila, Wlk

Range Khasis, Nagas, Nilgiris; Ceylon, Singapore, Borneo,

Mysol, Gilolo

Palpi reaching just above vertex of head and very slender, thorax smoothly scaled. abdomen with dorsal tuft at base, tibize not hairy. Fore wing short and broad, the costa and inner margin arched, the outer margin angled, veins 8, 9, 10 stalked. Hind wing with vein 5 from near lower angle of cell.

2187. Doranaga strammea, Hmpsn Ill Het vm, p 92, pl 147, fig 17

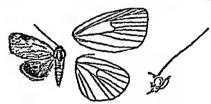


Fig 196 — Doranaga straminea, & }
Hab Nilgiris Exp. 24 millim

Q Ochreous and of glossy texture, palpi black at sides, vertex of head black. Fore wing with the apical area slightly suffused with fuscous, except the apex itself. Hind wing suffused with fuscous, the culia ochreous.

2188 Doranaga leucospila, Wil. Cat xxxii, p 788'
Doranaga apicalis, Moore, Lep Ceyl in, p 553, pl. 214, fig 7

Q Ochreous red-brown Fore wing with traces of sinuous antemedial line, a creamy-white triangular patch on the costa before apex, an oblique rufous and ochreous line from apex to centre of inner margin, an indistinct lumilate fuscous submarginal line. Hind wing fuscous, the cilia ochreous, underside with narrow curved medial fuscous band and traces of submarginal band.

A specimen from the Khásis has the white patch almost obsolete Hab Khásis, Nágas, Nilgiris, Ceylon, Singapore, Borneo, Mysol, Gilolo Eap 26 millim

Genus PTEROGONIA

Pterogonia, Sunnh Trans Ent Soc 1891, p 152 Craspedagonia, Hmpsn Ill Het ix, p 117 (1893)

Type, P episcopalis, Swinh

Range Nágas, Nilgiris, Ceylon, Borneo.

Differs from Doranuga in the palpi being obliquely upturned and reaching above a sharp frontal tuft. Fore wing with the costa straighter, the outer margin angled at vein 3, veins 8 and 9 anastomosing to form an areole, the retinaculum bar-shaped in male. Hind wing with vein 8 anastomosing with 7 to middle of cell, vein 5 from near lower angle of cell.

SECT I (Pterogonia) Fore wing with the outer margin not crenulate

2189 Pterogonia episcopalis, Swinh Trans Ent -Soc 1891, p 152

d Head, thorax, and fore wing grey, suffused with rosy and purplish hues, and slightly irrorated and striated with black. Fore wing with slight subbasal line, oblique sinuous antemedial line, a large silver mitre-shaped mark at end of cell, with bright ferru-

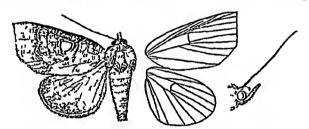


Fig 197 —Pterogonia episcopalis, d

ginous outline, traces of a postmedial sinuous line, a submarginal series of black specks. Abdomen and hind wing pale fuscous, the latter with the outer area darkest

The Nága specimen has the silvery stigma rounded and without ferruginous outline

Hab Nágas, Nilgiris, Borneo Exp 52 millim

- 2190 Pterogonia striatura, Moore, Lep Ceyl in, p 553, pl 214, fig 11, C & S no 2837
- o Ochreous, slightly irrorated and striated with black. Fore wing with traces of subbasal line, a highly curved indistinct antemedial line, a dark speck at each angle of cell, the base of vein 2 dark, a sinuous postmedial line, a submarginal series of black specks. Hind wing pale, the outer area fuscous

Hab Ceylon Exp 32 millim

- SECT II (Craspedogonia) Fore wing with the cilia crenulate, the outer margin more angled
- 2191 Pterogonia nubes, Hmpm Ill Het ix, p 117, pl 166, fig 3
 - P Head, thorax, and fore wing red-brown, suffused with fuscous

and slightly irrorated with white, fore wing with traces of waved antemedial and medial lines, the disk and outer area suffused with Abdomen and hind wing fuscous, the latter with the cilia white, underside with the outer area fuscous

Hab Cevlon Exp 40 millim.

Genus HOMODES

Homodes, Guen Noct 11, p 280 (1852)

Type, H crocea, Guen

Range Bombay, Ceylon, Andamans, Tava
Palpi uptuined and reaching vertex of head, the 3rd joint very minute, antennæ ciliated, thorax smoothly scaled Abdomen with dorsal tufts on proximal segments, tibiæ nearly smooth, fore legs of male with a tuft of long hair from base of cone Fore wing with the apex rounded Hind wing with vein 5 from near centre of discocellulars

2192 Homodes crocea, Guen Noct 11, p 280, pl x1, fig 2, C & S no 2189 (part)

d Orange-scarlet Fore wing with subbasal and antemedial waved lines with silvery scales on them, a boss of black and silvery scales in cell and two at end of it, an oblique medial fuscous hand with silvery scales on it, an irregularly waved postmedial line, with indistinct line beyond it, a crimson submarginal



Fig 198 -Homodes crocea, &

line, followed by a fuscous and silvery line, a marginal series of dark strize Hind wing with oblique fuscous and silvery medial band, irregularly waved postmedial line, followed by an indistinct line, a crimson submarginal line, with a fuscous and silvery one beyond it, a maiginal series of dark strice

Hab Andamans, Java Exp 38 millim

- 2193 Homodes vivida, Guen Noct 11, p 280, Hmpsn Ill Het 14 pl 163, fig 17, C & S no 2189 (part)
- Differs from crocea in the fore wing being without the bosses of scales at middle and end of cell, the postmedial line of both wings with a series of small raised vosses

Hab Bombay, Ceylon Exp 32 millim

Subfamily SARROTHRIPINÆ

Moths of small or moderate size, the fore wing with the costa and inner margin arched near base then of nearly even width throughout, and almost always with raised buttons of scales in the cell or raised lines on the wings. The pulpi either poriect and iostriform of upturned legs with the threal joints short

Larva with four purs of abdominal prolegs, sparsely clothed

with him in the known species

The subtimily is closely illied to the Noline, and almost at the bottom of the Noctuid scile, the retiniculum is often bar-shaped in the male, and vein 8 of the hind wing often anastomoses with 7 to near middle of cell

Ken to the Genera		
A Palpi obliquely poriect and slender, pio- boscis rudimentary B Proboscis fully developed	1	Triorbis, p 366
a Pulpi with the 3rd joint short and porrect b Palpi with the 3rd joint long and porrect	3	Ariola, p 367
a' Head extremely small, fore wing with vein 1 a long and curved b' Head normal	6	Пъвь.е.ч, р 371
 a¹ Fore write with the areole short a³ Fore write with tufts of raised scales on the disk b³ Fore write without tufts of raised 	5	Рьотнгіл, р 368
scales on the disk	4	Nolasi va, p 368
b ² Fore wring with the areole long	7	Arachnognath i
c Palpi with the third joint upturned		[p 373
a' l'ore wing with an areole		
a^2 Hind wing with vein 5 present		
as Thorax with no erect tuft be-		
hind the collai		
a4 Fore wing with the apex		
rounded, the areole short	12	CLETTHARINA, p 379
b4 Fore wing with the apex		, 1
1 ectangular		
a' Abdomen with doisal tufts		
a^{6} Abdomen usually long.		
the antennæ long and		
ciliated in male	8	LABANDA, p 374
b^{5} Abdomen and antennæ of		, F
normal length, the latter		
bipectinated in male	Ω	CHLUMETIA, p 376
b ⁵ Abdomen without dorsal	•	ошения, р от о
tufts		
a^6 Fore wing with the areole		
short		
a^- Fore wing short and		
broad]	10	Barasa, p 376
b^{7} Fore wing long and		
nailow	2	Gadirtha, p 367

	be Fore wing with the areole		
	long		
	a Fore wing long and		
	narrow	13	ARGYROTHRIPA,
	b' Fore wing short and		To 380
	broad	11	BLENINA, p 377
	b3 Thorax with an erect tuft be-		
	hind the collar	14	NEOTHRIPA, p 382
	b^2 Hind wing with vein 5 absent	15	HYPOTHRIPA, p 383
ď	Fore wing with no areole		7.2
	a ² Fore wing with veins 7, 8, 9		
	stalked	16	CLETTHARRA, p 383
í	ba Fore wing with veins 8, 9, 10		
	stalked, 7 from cell	17	SARROTHRIPA, p 387

Genus TRIORBIS, nov.

Type, T annulata, Swinh

Range Burma

Proboscis rudimentary, palpi obliquely porrect, the 2nd joint reaching beyond the frons, naked at base, more thickly scaled distally, the 3rd joint of moderate length, antennæ of female simple and thickened, thorax and abdomen smoothly scaled, the tabiæ fringed with long hair. Fore wing with the apex rounded, veins 8 and 9 anastomosing to form the arcole, slight lines of raised scales round the stigmata. Hind wing with vein 5 from lower angle of cell

2194 Triorbis annulata, Swinh Trans Ent Soc 1890, p 189, pl 6, fig 15

9 Grey-brown, palpi with a black lateral line on 2nd joint, and speck near apex of 3rd, the antennæ fulvous Fore wing

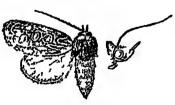


Fig 199 Triorbis annulata, Q

with some brown and purplish suffusion, dark rufous streaks from base on subcostal and below median nervure, an obliquely waved line from lower angle of cell to inner margin near base, the orbicular and reniform large, indistinct, double ring-marks, an indistinct, irregular, postmedial line, angled beyond the cell, a large,

indistinct ring-mark, crossed by a bright pink fascia beyond lower angle of cell, an irregularly smuous, pale, submarginal line, and an almost marginal line, some black streaks on the veins near apex. Hind wing fuscous brown, the underside paler, with indistinct cell-spot and submarginal hand

Hab Thyetmyo Exp 38 millim

Genus GADIRTHA

Gadirtha, Wil Cat xiii, p 1102 (1857)

Type, G meracta, Wlk

Range S America, China, Sikhim, Moulmein, Borneo, Australia

Palpi slender, the 2nd joint reaching vertex of head, the 3rd long, antennæ minutely fasciculated, thorax and abdomen smoothly scaled, tibiæ of male fringed with very long hair. Fore wing long and narrow, the apex rounded, the outer margin excised towards outer angle, the nicole broad, slight raised tufts of scales on the orbicular and remiform stigmata and below the cell. Hind wing with vein 3 from before angle of cell, veins 4 and 5 from the angle.

2195 Gadirtha inexacta, Will Cat xiii, p 1102, C & S no 2403 Gadirtha impingens, Will Cat xiii, p 1103, C & S no 2402

Pale red-brown, suffused with grey Fore wing with a sinuous

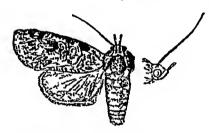


Fig 200 — Gadirtha inexacta, 3

antemedial line, with fuscous patch on the costa before it, the orbicular small and indistinct, the reniform large with black outline, a fuscous patch on the costa before apex, a crenulate postmedial line, a marginal series of black specks. Hind wing fuscous brown, the cilia pale, some specimens with the basal area pale.

The fore wing may be ruddy brown, the inner area suffused with grey and tinged with green, or it may be ruddy and dark brown or pale grey-brown

Hab China, Sikhim, Moulmein Eip 50-54 millim

Genus ARIOLA.

Ariola, Wll. Cat xii, p 768 (1857)

Type, A calisigna, Wlk Range Ceylon, Borneo

Palpi porrect, of moderate length, the 2nd joint thickly scaled, the 3rd minute, antennæ simple in male, thorax and abdomen smoothly scaled, the latter long in male. Fore wing of nearly even breadth throughout, the apex rounded, veins 8 and 9 anastomosing to form the areole. Hind wing with veins 3, 4 stalked, 5 from lower angle of cell

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2196 Ariola collisigna, Will Cat xii, p 760, C & S no 1789

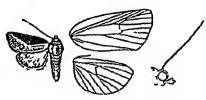


Fig 201 —Ariola calisigna, d

Head and thorax pale green, abdomen fuscous. Fore wing bright green, with a curved silvery-white fascia from the base to apex, the outer margin pink, with black marginal marks and line. Hind wing fuscous.

Hab Ceylon, Borneo Exp

antemedial scarlet lines, with a silvery band between them, a waved postmedial oblique scarlet line, with black outer edge and a silvery band beyond it.

22 millim

Genus NOLASENA

Nolasena, Wlk Cat x11, p 981 (1857)

Type, N ferrifervens, Wlk Range Ceylon, Burma

Palpi porrect, the 2nd joint fringed with hair above, the 3id acute at apex, antennæ minutely chated. Fore wing with the apex slightly acute, veins 8 and 9 anastomosing to form the areole

2197 Nolasena ferrifervens, Will Cat xn, p 082, C & S no 2024

Chestnut- or grey-brown Fore wing with two parallel oblique



some white specks on costa towards apex, a marginal series of black and red specks

Nolasena ferrifervens, of than the Ceylon one, with the scarlet lines narrower

Hab Ceylon, Rangoon Enp 24 millim

Genus PLOTHEIA

Plotheia, Wil. Cat xiii, p 1108 (1857)
Egelesta, Wil. Cat xv, p 1747 (1858)
Galleriomorpha, Feld Wien Lnt Mon vi, p 37, note (1862)
Othora, Wil. Cat xxxiii, p 902 (1865)
Selepa, Moore, Lep E I C p 353 (1858)

Type, P decrescens, Wlk
Range Sikhim, throughout Continental India, Ceylon, Java
Proboscis fully developed, palpi with the 2nd joint upturned
the 3rd porrect and long, the frontal tuft long, antenno heavily
ciliated in male, thorax and abdomen without tufts fore tibio
heavily tufted with hair Fore wing with the outer margin some-

PLOTHEIA 369

what erect, slight tufts of raised scales on disk, veins 8 and 9 anastomosing to form the areole Hind wing with veins 3 and 4 from angle of cell, 5 from just above angle

Plothera decrescens, Wik Cat xiii, p 1104, C & S no 2401
Plothera frontalis, Wik Cat xiii, p 1109, Hmpsn Ill Het ix, pl 164, figs 1-32, C & S no 2411
Egelesta iudivitta, Wik Cat xi, p 1748, C & S no 2419
Galleromorpha lichenoides, Feld Wien ent Mon vi, 1862, p 38, C & S no 2416
Gadirtha guttulosa, Wik Cat xixiii, p 896, C & S no 2413
Gadirtha spurcata, Wik Cat xixiii, p 896, C & S no 2420
Othora canescens, Wik Cat xixiii, p 904
Othora onusta, Wik Cat xixiii, p 905
Othora signata, Wik Cat xixiii, p 906
Othora lata, Wik Cat xixiii, p 909
Othora subglauca, Wik Cat xixiii, p 909, C & S no 2408
Othora subglauca, Wik Cat xixiii, p 905, C & S no 2409
Othora cinerascens, Wik Cat xixiii, p 903, C & S no 2409
Othora cinerascens, Wik Cat xixiii, p 903, C & S no 2407
Othora albotecta, Wik Cat xixiii, p 903, C & S no 2418
Othora concisa, Wik Cat xixiii, p 907, C & S no 2418
Othora concisa, Wik Cat xixiii, p 911, C & S no 2414
Othora albotecta, Wik Cat xixiii, p 911, C & S no 2416
Othora albotecta, Wik Cat xixiii, p 911, C & S no 2416
Othora albotecta, Wik Cat xixiii, p 911, C & S no 2416
Plothera lativitta, Wik Cat xixiii, p 911, C & S no 2416
Plothera lativitta, Wik Cat xixiii, p 908, C & S no 2406
Plothera lativitta, Moore, Lep Ceyl iii, p 108, pl 158, fig 2, C & S no 2412

Ground-colour of head, thorax, and fore wing pale brown, olivegreen, or grey Fore wing with indistinct double subbasal, antemedial, postmedial, and single submarginal line, the orbicular and remiform represented by raised specks of scales, abdomen and

hind wing fuscous, the former with some dark ring-marks

The colour may be almost uniform olive-brown, green, or pale brown, or the fore wing may have blackish patches at base of inner margin and apex, or the inner area may be suffused with brown and have black longitudinal streaks, or there may be an ochreous patch on the medial costal area, or the whole medial area may be suffused with white, or with a white subbasal band, or with a white patch on centre of inner margin, or patches on thorax and at apex, or small specks scattered over the wing, or a white fascia from base to near outer margin, or the whole medial and outer areas, except the apex, creamy white, the ante- and post-medial lines may be white with smoky black or grey between them, with white subapical streaks and others on inner area, or these streaks may be black or chestnut, or there may be a black stigma below the centre of costa, or the wing may be marked with black specks, or almost wholly suffused with ferruginous red

Hab Ceylon Eip 36 millim

- 2199 Plothera celtis, Moore, Lep E I Co p 353, pl 16, figs 8, 8 a (larva), Lep Ctyl III, pl 158, fig 5, C & S no 2424
 Subita cuivifeiella, Wik Cat xxxv, p 1745
 Selepa docilis, Buti P Z S 1881, p 619, C & S no 2425
 Gadirtha diseigera, Wik Journ Lunn Soc vii, p 163
- Q Head and thorax pale brown, abdomen fuscous Fore wing pale brown with a purplish-grey tinge, traces of subbasal and medial waved black lines, a double postmedial line excurved round end of cell and enclosing a blackish circular patch, the line crossed by black streaks on each side of vein 2, a waved submarginal pale line and series of short marginal dark streaks. Hind wing whitish, suffused with fuscous towards outer margin.

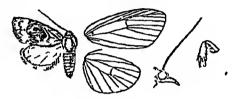


Fig 203 -Plothera celtis, of

of with the hind wing fuscous and a black patch on inner area below

Dochs is a greyer form from Karáchi

Larva yellow, the head black, dorsal black patches on 5th, 10th, and 11th somites, a lateral reddish line with a series of black spots

Hab Nágas, throughout Peninsular India and Ceylon, Java

Evp 24 millim

2200 Plothera ænescens, Moore, Lep Ath p 288

Q Differs from celtis in the head and thorax being darker, the fore wing much more suffused with purplish fuscous, the rounded orbicular and lunulate remiform dark and more defined, the postmedial line more sinuous and less excurved beyond the cell Hind wing pale fuscous

 $ar{Hab}$ Sikhim Exp 32 millim

2201 Plotheia strigifera, Moore, Lep Ceyl in, p 103, pl 158, figs 3, 3 a (larva), C & S no 2427

Head, thorax, and abdomen pale brown Fore wing pale brown suffused with red-brown, the veins streaked with dark brown, an indistinct antemedial curved line and postmedial line excurved round end of cell, with a prominent black fascia between them below median nervure, a waved submarginal and black marginal line. Hind wing pale fuscous

Another form has the head, thorax, and abdomen whitish grey, the tegulæ ferruginous, fore wing with the basal and outer areas grey, the medial area ferruginous, no black fascia below the median nervure, hind wing white with the margin fuscous

Larva brownish ochreous, with a dorsal series of slender erect black hairs which are very long and with spatulate ends at anterior and posterior extremities, lateral series of white hairs, a subdoisal black-spotted green band from 5th to 10th somites, dorsal black spots on 2nd to 5th and 11th somites

Hab Ceylon Erp 20 millim

2202 Plothera rabdota, Hmpsn Ill Het vin, p 88, pl 146, fig 4

Q Head and thorax pale brown Fore wing pale brown, the inner margin darker, blackish streaks below the median nervure and from the upper angle of cell to apex and from lower angle to centre of outer margin, a dark patch at outer angle and series of marginal specks. Hind wing whitish, the outer margin very slightly suffused with fuscous

Hab Nilgiris Erp 26 millim

2203 Plotheia metaspilella, Will Cat xxxv, p 1746

Head and thorax grey, abdomen brownish Fore wing grey, traces of a waved antemedial line, an indistinct waved double medial line sending a dark spur outwards in the interno-median interspace to the indistinct curved and waved postmedial line, a dark speck at end of cell, a series of dark submarginal specks Hind wing white, suffused with fuscous in the male, entirely fuscous in the female

Hab Ganjam, Nilgiris Eip, & 23, Q 25 millim

Genus HYBLÆA

Hyblæa, Fabr Ent Syst 111, 2, p 127 (1794)

Type, H puera, Cram

Range Throughout the tropical and subtropical zones, N China,

Japan

Head very small, palpi porrect and rostriform, antennæ minutely ciliated in male, thorax and abdomen smoothly scaled, this clothed with long hair and without spines. Fore wing with the costa arched near base, the inner maigin lobed, vein 1 a strong and bent down to near centre of inner margin, the cell open, veins 6, 7, 8, 9 from close to angle of cell. Hind wing with the cell open, vein 8 anastomosing with 7 to near middle of cell.

SECT I Fore wing with the outer margin not excised below apex and evenly curved

2204 Hyblæa puera, Cram Pap Exot pl 103, figs D, E, C & S no 2232, Moore, Lep Ceyl 111, pl 154, figs 2 2a (larva)
Noctua saga, Fabr Mant Ins 11, p 137
Noctua unvia, Hubn Eur Schmett, Noct fig 513
Heliothis apricans, Bossd Faun Ent Madag p 98, pl 15, fig 7

Head and thorax greyish ied-brown, abdomen black-brown

with orange segmental bands. Fore wing greyish red-brown, irrorated with a few dark specks. Hind wing black-brown, with curved orange band with scarlet edges from upper angle of cell to near anal angle, a band on the margin from vein 2 to anal angle. Underside of fore wing black, with orange fascia in cell and far

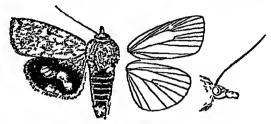


Fig 204 —Hyhlæa puera, &

beyond it, the costa and apex pale brownish with dark specks, the inner margin vellow. Hind wing pale brownish with dark specks, orange towards anal angle with two large black spots

Larva with a few short hairs, dark purple-grev above, olive-green below, with dorsal and lateral white lines, a subdorsal series of minute white dots and rings, a series of black dots on lateral line, head and 1st somite black Food-plant Bignoniaceæ

Hab W Indies, S Africa, throughout India, Burma, and Ceylon, Java, New Guinea, Cape York Exp 32-40 millim

SECT II Fore wing with the outer margin excised below apex and excurved at centre

2205 Hyblæa constellata, Guen Noct 11, p 391, Moore, Lep Ceyl 111, pl 154, figs 3, 3 a, C & S no 2230

Head and thorax dark olive-green, abdomen black, with orange segmental rings and crimson at sides towards extremity. Fore wing dark olive-green with dark specks, often with two antemedial yellowish-white diffused patches, a subapical bar, and brown apical patch on costa. Hind wing black-brown, with two orange spots beyond lower angle of cell and two towards anal angle. Underside of fore wing black, with the costa and inner margin crange, the base of cell, a band at end of it, and one beyond it orange. Hind wing orange, suffused with crimson and with numerous black spots, a black spot at anal angle.

Hab China, throughout India, Ceylon, and Burma, Malacca, Borneo, Australia Eap 34-40 millim

2206 Hyblæa hypocyanea, Swinh MS

Differs from constellata in the abdomen being without crimson. Fore wing uniform dark blown speckled with black. Hind wing with the orange spots obsolescent except the one beyond cell. Underside of fore wing with the costa very slightly red-

tinged, the inner area whitish, hind wing suffused with purpish white

Hab Khásis Eip 30 millim Type in B M

2207 Hyblæa firmamentum, Guen Noct 11, p 392, C & S no 2231

Head, thorax, and abdomen dark red-brown, the last with the segments slightly fringed with yellow. Fore wing red-brown irrorated with dark specks, a chocolate basal patch terminating at end of cell in an acute angle, the part below cell darkest, a chocolate streak from centre of costa to above centre of outer margin, cilia pale in the emargination below apex. Hind wing black-brown, with a yellow spot below centre of costa and another above anal angle which is sometimes obsolescent, two yellow patches on cilia towards anal angle. Underside with the inner area of fore wing yellow and two patches on costa, the hind wing with numerous yellow patches.

The yellow spots of hind wing are often entirely absent above and

much reduced on underside

Hab China, Sikhim, Khásis Esp 42 millim

Genus ARACHNOGNATHA, nov

Type, A meterythra, Hmpsn

Range Burma

Palpi long, porrect, and curved, the 2nd joint clothed with long hair, thorax and abdomen smoothly scaled. Fore wing with the costa highly arched at base, the apex quadrate, the areole long, vein 7 being given off halfway up it and 8 before the end. Hind wing with the inner margin short, veins 3, 4, and 5 from close to angle of cell. Fore tibiæ not tufted

2208 Arachnognatha meterythra, n sp

Q Head, thoray, and abdomen pale brown Fore wing pale olive-green, with very faint traces of antemedial, medial, and postmedial diffused chestnut bands, a speck of erect black scales

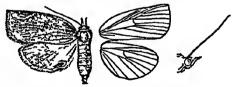


Fig 205 -Arachnognatha meterythra, Q 1

representing the orbicular, cilia chestnut Hind wing vinous pink, an ocellate mark at anal angle consisting of a pale limite and dark pupil

Hab E Pegu, 5000 feet (Dollerty) Exp 36 millim Type in

coll Elwes

Genus LABANDA

Labanda, Wlh Cat xvii, p 284 (1859) Bailana, Wlh Cat xxii, p 603 (1865) Lazanda, Wlh Cat xxxii, p 604

Type, L herbealts, Wlk

Range Throughout India and Ceylon

Paipi smoothly scaled, the 2nd joint reaching vertex of head, the 3rd long and naked, antennæ very long and slender, minutely ciliated in male. Thorax smoothly scaled, abdomen slender, with dorsal tuits on the first two segments, and usually extending far beyond the hind wing, tibiæ almost naked. Fore wing with the apex rounded, the outer margin evenly curved. Hind wing with vein 5 from lower angle of cell

SECT I Hind wing with veins 3 and 4 from cell, male with the retinaculum not bar-shaped.

2209 Labanda fasciata, Wlk Cat XXII, p 605, Hmpsn Ill Het IX, pl 167, tig 14, C & S no 1651
Diomea muscosa, Wlk Cat XXIII, p 808, C & S no 3016

Head and thorax brownish green, irrorated with black scales, abdomen fuscous brown. Fore wing green, irrorated with black, subbasal, double ante- and postmedial waved dark lines, a diffused tuscous antemedial or medial band usually present and traces of the renitorm, an irregularly dentate diffused submarginal line,



Fig 206 -Labanda fasciata; & }

cilia dark intersected with green Hind wing dark fuscous brown Underside with a pale mark on costa of fore wing before apex

Some specimens have whitish suffusion on the medial area of fore wing

Hab Nilgiris Ceylon, Moulmein Erp 36-40 millim

2210 Labanda griseinigra, n sp

Differs from fasciata in the head, thorax, and fore wing being variegated with grey, black, and fuscous or brown, but without any green tinge, the postmedial line excurved beyond the cell

Some specimens are brownish, others fuscous and grey, whilst one has the basal half of fore wing grey with a black patch at base of costa and broad streak below median nervure from base to above outer angle, the medial area suffused with black

Hab Sikhim (Elwes, Knyvett), Ganjam (Minchin) Esp 28

millim Type in coll Elwes

2211 Labanda saturalis, Wlk Cat axxiv, p 1251, C & S no 3017 Bocana achine, Feld Reis Nov pl 120, fig 18, C & S no 3014 Bocana viridalis, Moore, P Z S 1867, p 88, C & S no 3006

Differs from fasciata in the ground-colour of the fore wing being fuscous brown, irrorated with given scales, the sub-basal and autemedial lines on green bands, some green patches on the submarginal irregular line. Underside without the pale patch on costa

Hab Ceylon, E Pegu Erp 34 millim

2212 Labanda chloromella, Will Cat xv, p 1804, Hmpsn Ill Het 1x, pl 168, fig 5, C & S no 3015 (part)

Differs from saturalis in the fore wing having patches of brown suffusion on basal and outer areas, instead of the basal area being chiefly green and the outer brown, the ante- and postmedial lines white-edged from below costa to inner margin

Hab Ceylon Erp 26 millim

2213 Labanda herbealis, Wil. Cat xvii, p 284, Hmpsn Ill Het ix, pl 168, fig 9, C & S no 3015 (part)
Labanda graminalis, Hmpsn Ill Het ix, p 133, pl 167, fig 23
Barrana submuscosa, Wil. Cat xxii, p 604

Differs from fasciata in the head and thorax being brown Fore wing green, suffused with brown and not irrorated with black, the dark waved lines on green bands and more dentate. Hind wing paler, underside with slight whitish margin to fore wing hind wing with the base whitish, the outer area dark with a whitish postmedial band.

Hab Ceylon, Java Eup 20-26 millim

2214 Labanda semipars, Wil. Cat xv, p 1647, Hmpsn Ill Het ix, pl 168, fig 3, C & S no 3018

Bocana pamphosalis, Wil. Cat xix, p 887

Gerbatha laticineta, Wil. Cat xxxii, p 913

Dark red-brown Fore wing with subbasal, ante- and postmedial waved dark lines on pale brown bands, the last slightly excurved beyond cell, a black line on discocellulars, an indistinct dentate submarginal line with a black subapical speck on it Hind wing and underside palei

Hab Sikhim, W and S India, Ceylon, E Pegu Evp 28-

30 millim

- SECT II Hind wing with veins 3 and 4 stalked, male with the retinaculum bai-shaped, the abdomen short
- 2215 Labanda orbiculaiis, Wik Cat xv, p 1804, C & S no 2417
- d Head and thorax black with a few grey and ochreous scales, abdomen fuscous Fore wing black, irrorated with orange, the

outer area grey except at apex, indistinct waved subbasal, antemedial, and postmedial lines, a black speck at end of cell wing fuscous

Hab Ceylon Erp 26 millim

Genus CHLUMETIA

Chlumetia, Will Cat xxxiv, p 1270 (1865) Nachaba, Wik Cat xxvii, p 113 (1863) (præocc)

Type, C transversa, Wlk

Range Sikhim, Ganjam, Ceylon

Palpi with the 2nd joint reaching vertex of head and thickly clothed with scales, the 3rd short, antennæ of male bipectinated, thorax smoothly scaled, abdomen with doisal tufts, tibre moderately hair; Fore wing with hardly a trace of raised buttons of scales, veins 8 and 9 anastomosing to form a short areole wing with veins 3, 4, and 5 from lower angle of cell

2216 Chlumetia tiansversa, Will Cat xxvn, p 114, Moore, Lep Ceyl 111, pl 151, fig 3, C & S no 2217 Chlumetia guttiventris, Wik Cat alaiv, p 1271

Head pale, the base of palpi black, thorax and abdomen clothed with rutous, fuscous, and grev scales, a vential series of



Fig 207 — Chlumetia transversa, 2

white spots Fore wing red-brown with a subbasal line, a double antemedial line, indistinct pale orbicular and reniform spots with rufous medial line between them, a double postmedial line, the inner one rufous, the outer slightly angled at vein 4, traces of a sinuous submarginal line, a marginal series of black specks Hind wing fuscous

The Ganjam specimen is without the white spots on underside of abdomen

Hab Ganjam, Ceylon Esp 18 millim

2217 Chlumetia alternans, Moore, Lep Ath p 147, C & S no 2215

Differs from transversa in the thorax and abdomen being Fore wing green, with the basal area dark rufous, the lines indistinct except the outer postmedial line, which is rufous and evenly curved, the orbicular obsolete, the reniform prominent and ochreous, the outer area suffused with white Hind wing with a marginal series of dark stile

Hab Sikhim Erp 26 millim

Genus BARASA

Barasa, Will Jown Linn Soc vi, p 192 (1862)

Type, B acronycioides, Wlk

Range Ganjam , Ceylon , Borneo

Palpi uptuined, reaching above vertex of head, the 2nd joint

thickly scaled, the 3rd long and naked Antennæ fasciculated in male. Forewing of male with a tutt of long hair arising from vein 1 near the base, veins 3, 4, and 5 from close to angle of cell, 6 from upper angle, 9 rising from 10 and anastomosing with 8 to form the arcole. Hind wing with veins 3 and 4 stalked, 5 from angle of cell, 6 and 7 from upper angle, 8 from 7 at middle of cell.

- 2218 Barasa acronyctoides, W7k Journ Linn Soc vi, p 192 Baiasa cana, Hmpsn Ill Het ix, p 107, pl 163, fig 5
- d Head and thorax white, irrorated with brown scales, collar banded with brown Fore wing white, irrorated with blown, traces of a subbasal line, an indistinct dentate antemedial black



Fig 208 -Borasa acronyctoides, & 1

line and curved postmedial line, a marginal series of black specks, some patches of blown suffusion on costa and outer area, the tutt of hair on vein 1 black. Hind wing pale fuscous

Hab Ganjam, Ceylon, Borneo Exp, & 28, 2 22 millim

Genus BLENINA

Blenina, W7k Cat xin, p 1214 (1857) Eliocioea, Wlk Cat xxxin, p 935 (1865) Amrella, Moore, Lep Ath p 158 (1882)

Type, B donans, Wlk

Range Throughout India, Ceylon, and Burma, Andamans,

Ceram, New Gumea, Australia

Palpi upturned, the 2nd joint reaching vertex of head, the 3rd of moderate length, thorax smoothly scaled, abdomen with slight tufts at the base on the doisum. Fore wing short and square, with the apex nearly rectangular, the inner margin lobed near base, slight tufts of raised scales on antemedial, medial, and post-medial lines, and on discoccilulars, the areole long and narrow, the retiniculum bar-shaped in male. Hind wing with veins 2, 3, 4, and 5 from lower angle of cell

- SECT I (Blenma) Antennæ of male minutely ciliated, fore wing with the outer maight slightly excised towards outer angle, hind wing rounded
- 2219 Blemna donans, WW. Cat xiii, p 1215, Moore, Lep Ceyl iii, pl 160, fig 2 C & S no 2264

Blenina grisea, Moore, P Z S 1877, p 607, pl 60, fig 1, C & S no 2265
Blenina pannosa, Moore, Lep Ath p 157, pl 5, fig 4, C & S no 2267

Head and thorax grey, suffused with fuscous, abdomen orange fulvous, with the slight tuft at base grey. Fore wing grey slightly suffused with fuscous, and with a green tinge in places, somewhat indistinct waved subbasal, oblique medial and postmedial, and miegular submarginal dark lines, a dark streak from the disco-

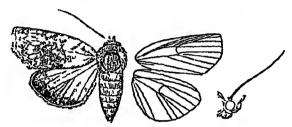


Fig 209 -Blenina donans, of

cellulars to the submarginal line above outer angle. Hind wing

orange with marginal fuscous-black boider, widest at apex

The form grasen has a large black spot below end of cell, and rather more green suffusion on fore wing paintosa is a greener form, with a large fuscous patch on the outer half of the inner area of fore wing

Hab Nilgiris, Ceylon, Andamans, New Guinea Exp 40

millim

2220 Blenina accipiens, Will Cat xiii, p 1215, Moore, Lep Ceyl III, pl 160, fig 3, C & S no 2263

Differs from donans in the thorax being browner. Fore wing suffused with fuscous brown, some specimens with the inner area fuscous, others with the basal area and the whole area beyond the medial line suffused. Hind wing with the basal half suffused with brown, the outer band more irregular and widest at costa

Hab Throughout India, Ceylon, and Burma, Australia Exp

38 millim

2221 Blenina lichenosa, *Moore*, *P Z S* 1877, p 607, pl 60, fig 2, *C & S* no 2266
Blenina variegata, *Moore*, *Lep Atk* p 157, *C & S* no 2269

Differs from donans in the antemedial line of fore wing being more obliquely waved and with a line beyond it below cell, a black speck in cell, the postmedial line more waved and incurved below cell. Hind wing fulvous brown, with an orange postmedial band not reaching costa, underside with a medial daily band.

Lichenosa has the thorax dark, the abdomen fulvous brown, forewing with the basal part green, the rest of wing dark red-brown suffused with fuscous Variegata is much greyer, the

hunder part of collar dark, fore wing with the basal, medial, costal, and outer areas green and fuscous, the medial area white Another form has the head and thorax green, fore wing with the basal and apical areas bright green, the medial area grey

Hab Sikhim, Nagas, Andamans Erp 40-42 millim

2222 Blenina quinaria, Moore, Lep Ath p 158, pl v, fig 5, C & S no 2265

Differs from accipiens in the fore wing having the ground-colour of costal half ochieous, the inner half whitish, the basal two-thirds slightly suffused with green, a black patch on basal inner area, some specimens with a black fascia from base to outer angle sending two spurs to the cell. Hind wing yellow-blown instead of orange, the outer band regular and widest at apex.

Hab Sikhim Erp 40 millim

SECT II (Amiella) Antennæ of male (?) fasciculate, fore and hind wings with the outer margins angled in the middle

*2223 Blenina angulipennis, Moore, Lep Ath p 158, pl v, fig 6, C & S no 2270

d Head and thorax olive-green, abdomen greyish Fore wing olive-green, with four in regular black grey-bordered lines, of which the postmedial is the most prominent and bent inwards below tem 3, some black specks at middle of cell and two on costa towards apex. Hind wing greyish, with a broad fuscous marginal band, the basal area suffused with ochreous. Underside ochreous, with nairow medial and broad outer fuscous bands.

Hab Sikhim Exp 44 millim

Genus CLETTHARINA, nov

Type, C_nitens, Hmpsn

Range Burma

Palpi upturned, the 2nd joint reaching above vertex of head, the 3id short, antennæ almost simple in male. Retinaculum barshaped in male. Fore wing with the costa arched at base and very broad, vein 9 arising from 10, and anastomosing with 8 to form the areole. Hind wing with veins 3 and 4 from cell. The raised scales on fore wing taking the form of a band near end of cell from subcostal nervine to vein 1, male with the area near anal angle of hind wing clothed with modified scales.

2224 Clettharina nitens, n sp

d Head, thorax, and abdomen silvery grey with a red-brown tinge Fore wing silvery grey, the cell and interno-median interspace with a golden line as it as the band of raised scales traces of two very irregularly waved postmedial lines and a submarginal

series of specks Hind wing silvery grey, the modified scales on anal area white

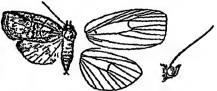


Fig 210 -Clettharma nitens, of

Hab E Pegu, 5000 feet (Doherty) Exp 30 millim Type in coll Elwes.

Genus ARGYROTHRIPA, nov

Type, A lilacina, Moore.

Range Sikhim, Indian Peninsula, Ceylon, Burma

Palpi upturned, the 2nd joint reaching vertex of head, the 3rd usually long, antennæ of male with long cilia, thorax and abdomen smoothly scaled Fore wing with veins 8 and 9 anastomosing to form the arcole, which is long Hind wing with vein 5 from close to angle of cell

SECT I Hind wing with veins 3 and 4 from cell

2225 Argyrothripa lilacina, Moore, Lep Ath p 289

3 Head and thorax brown, collar and tegulæ white, abdomen pale fuscous Fore wing silky white with a slight fuscous tinge, a very indistinct waved antemedial line with two raised specks of

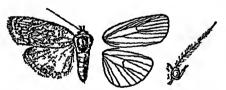


Fig 211 —Argyrothripa lilacina, & }

scales on it in the cell a raised speck of scales at end of cell, a highly excurved and dentate postmedial line, three dark specks on the costa before the apex, a waved submarginal pale line. Hind wing pale brownish fuscous

Hab Sikhim, Ceylon Exp 32 millim

2226 Argyrothripa orbifera, n sp

Balpi with the 3rd joint short, the retinaculum bar-shaped Head, thorax, and abdomen yellowish grey. Fore wing leaden grey, suffused with olive-green as far as the postmedial line, the base and inner margin pale grey—the outer area coppery red, the remiform a prominent round black-edged spot with grey centre, the postmedial line sinuous, an indistinct irregular submarginal line—Hind wing pale fuscous

Hab E Pegu, 5000 feet (Doherty) Evp 24 millim Type in coll Elwes

- 2227 Argyrothripa occulta, Swinh P Z S 1885, p 461, pl 27, fig 11, C & S no 2426
- Q Reddish brown Fore wing irrorated with black, black basal streaks on vein 1 and inner margin, a waved antemedial line, a dark speck in cell, the reniform large and indistinct, a double curved postmedial line, a large subtriangular grey patch on apical part of costa with an indentation in its outer edge, the veins streaked with black at the margin. Hind wing dark fuscous, underside with cell-spot, postmedial line, and the outer area fuscous.

Hab Poona Erp 30 millim

2228 Argyrothripa xanthosticta, n sp

Brownish grey, palpi white with the sides black, fore tibize tufted and with a black spot on them. Fore wing with irregular antemedial line with diffused brown band inside it, a medial sinuous line angled on median nervure, the reniform bright yellow, a postmedial sinuous line recurved to near lower angle of cell, with some brown suffusion beyond it, an indistinct irregularly waved submarginal line, some brown suffusion on outer margin. Hind wings whitish, the outer area fuscous

Hab Sikkim Exp 36 millim Type in coll Elwes

SECT II Hind wing with veins 3 and 4 stalked

2229 Argyrothripa grisea, Hmpsn Ill Het viii, p 87, pl 146, fig 13

d Head, thorax, and fore wing silvery grey, irrorated with fuscous, the last with the antemedial, medial, and postmedial double lines prominent, a dentate submarginal line, the median nervure at end of cell and the discocellulars dotted with ferruginous scales, a medial fuscous patch on the costa, a series of marginal specks. Hind wing and abdomen fuscous

Hab Nilgiris Eip 30 millim

2230 Argyrothripa pallescens, Hmpsn Ill Het 1x, p 108 nl 163, fig 25

d Pale greyish white with a brownish tinge. Fore wing with a very indistinct double antemedial, medial, and postmedial waved lines and single submarginal line. Hind wing whitish fuscous Hab Ceylon. Exp. 24 millim.

2231 Argyrothripa robusta, Moore, Lep Ath p 288

d Head and thorax pale and dark brown, abdomen pale Fore wing very pale reddish brown as far as the double highly curved postmedial lines, which are dark and prominent, the area beyond them grey, indistinct subbasal and antemedial waved lines, a dark streak below the cell, terminating in a black medial

spot, inner margin suffused with fuscous, an indistinct waved submarginal line. Hind wing fuscous

? The basal area of the fore wing darker and without the

streak and spot

Hab Sikhim Eap, 3 26, 2 30 millim

2232 Argyrothripa niveidisca, n sp

d Head grevish, thorax white, abdomen pale fuscous, with black basal dorsal tuft. Fore wing white, pinkish towards the apical area which is black, a triangular black patch on centre of inner margin, some grey on outer margin. Hind wing pale, slightly suffused with fuscous at apex.

Hab Tenasserim (Doherty) Erp 24 millim Type in coll

Druce

Genus NEOTHRIPA, nov

Type, N punctistigma, Hmpsn

Range Simla, Khásis

Palpi upturned, the 2nd joint reaching vertex of head and roughly scaled, the 3rd short Thorax with a high spreading tuft of scales on vertex. Fore wing with the costa arched near base, of almost even width thoughout, vein 8 anastomosing with 9 to form the areole which is short, the raised tufts very slight. Hind wing with vein 5 from below centre of discocellulars and depressed at origin, 3 and 4 from angle of cell

2233 Neothripa punctistigma, n sp

Head and thorax grey-brown abdomen pale fuscous Fore wing greyish fuscous, the basal and medial costal areas suffused with grey-green, subbasal, ante- and postmedial waved lines, the last excurved beyond the cell, orbicular and reniform outlined by specks of slightly raised black scales, a diffused irregularly waved submarginal line. Hind wing fuscous, underside with cell-spot and irregularly sinuous postmedial line.

Hab Simla (Harford) Eip 30 millim Type in B M

2234 Neothripa glaucescens, n sp

d Head and thouar grey-green mingled with black scales, 3rd joint of palpi black, abdomen whitish with a fuscous tinge. Fore

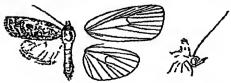


Fig 212 -Neothripa glaucescens, d }

wing grey-green, the outer area fuscous except at apex, numerous white specks on basal area, a dark patch at end of cell and another

below the end, the former with some erect black scales on it, faint traces of antemedial, medial, postmedial, and submarginal waved lines, the last with three reddish subapical streaks crossing it, a marginal series of black specks. Hind wing pale fuscous, underside with cell-spot and sinuous postmedial line

Hab Khásis, 4,000 feet (Elwes) Exp 28 millim Type in

coll Elwes

Genus HYPOTHRIPA, nov

Type, H currosa, Swinli

Range Burma

Palpi upturned, the 2nd joint reaching vertex of head, the 3rd long Fore wing with veins 8 and 9 anastomosing to form the areole, which is long Hind wing with veins 3 and 4 stalked, 5 absent

2235 Hypothripa curiosa, Swinh Trans Ent Soc 1890, p 235

d Head and thorax greyish fuscous, abdomen brownish

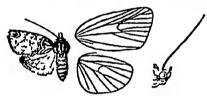


Fig 213 — Hypothripa curiosa, 3

fuscous, abdomen brownish Fore wing pale brown suffused with purplish grey, two waved brown antemedial lines, a finer medial line and indistinct crenulate postmedial and submarginal lines, a dark brown apical patch Hind wing whitish, with fuscous suffusion on apical area Underside of fore wing fuscous,

with a pale patch on costa near apex with dark strix on it Hind wing whitish, with the costal area tuscous

ł

Another specimen has the antemedial lines of hind wing more oblique, the apical patch absent

Hab Rangoon, Tenasserim Evp 24 millim

2236 Hypothripa cana, n sp

A Head and thorax greyish white, abdomen brownish white Fore wing greyish white, with faint traces of waved antemedial, medial, postmedial, and submarginal lines. Hind wing semihyaline and opalescent, the apical area slightly tinged with fuscous

Hab E Pegu, 5000 feet (Doherty) Exp 32 millim Type in

coll Elwes

Genus CLETTHARRA

Clettharra, Wlh. Cat xxvii, p 101 (1863) Orosa, Wlh. Cat xxxiv, p 1222 (1865)

Type, C valida, Wlk

Range Karachi, Bombay, Nilgiris, Ceylon, E Himalayas, Assam, Burma, Andamans, Borneo

Palpi upturned and slightly scaled Antennæ minutely ciliated

in male and simple in female. Fore wing with veins 3, 4, 5 from near angle of cell, 6 from upper angle, veins 7, 8, 9 stalked. Hind wing with veins 3 and 4 usually stalked, 5 from just above angle of cell, 6 and 7 from upper angle, 8 from middle of cell.

SECT I Fore wing with vein 10 stalked with 7, 8, 9, hind wing with veins 3, 4 stalked

2237 Clettharra valida, Wil Cat xxvii, p 101, Hmpsn Ill Het 12, pl 163, fig 12

Head, thorax, and abdomen pale brown Fore wing pale red-

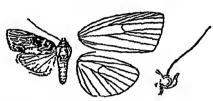


Fig 214—Clettharra valida, 3

brown, an oblique black streak from the costa near base to above centre of inner maigin, a waved antemedial pale line, a postmedial line angled outwards beyond the cell, the inner area grey from the base to the postmedial line, the apical area suffused with white,

three black costal stime before the apex, two black streaks above outer angle, which is suffused with black and white. Hind wing white, slightly suffused with fuscous towards outer margin

Hab Ceylon, Borneo Exp 24 millim

2238 Clettharra albonotata, n sp

J Differs from valida in the thorax being marked with white Fore wing without the oblique black streak, three waved white antemedial lines, a triangular white patch on centre of inner margin, the postmedial line indistinct and excurved, not angled beyond cell, a triangular white patch with black mark on it on apical part of costa, a white spot on centre of outer margin

Hab Tenasserim (Doherty) Enp 24 millim Type in coll

Druce

2239 Clettharra basalis, Moore, Lep Ceyl 111, p 105, pl 158, fig 7, C & S no 2431

Differs from valida in the fore wing being more uniform brown with no white on inner margin, a black patch at base of costa, the waved line medial, more distinct, and erect, the highly angled postmedial line arising from the costa beyond the middle Hind wing with the outer area more suffused with fuscous

Hab Ceylon Erp 22 millim

2240 Clettharra variegata, n sp

d Head and thorax pale reddish brown, collar marked with fuscous, abdomen fuscous. Fore wing pale red-brown, the auterud postmedial lines composed of ill-defined white and black lines on a fuscous ground, apical area fuscous brown, a marginal

series of black specks Hind wing whitish, underside with a diffused fuscous line across the apex

Hab Nagas, Tenasserim (Doherty) Exp 20 millim Type

in coll Elwes

- 2241 Clettharia torticoides, Will Cat xxxiv, p 1223, Hmpsn III Het ix, pl 163, fig 23, C & S no 2949
- Q Pale red-brown Fore wing with a patch of dark scales on basal costal area, medial, postmedial, and submarginal series of dark specks, the postmedial series highly excurved beyond the cell Hab Ceylon Exp 20 millim

SECT II Fore wing with vein 10 from the cell

A Hind wing with veins 3 and 4 stalked,

- 2242 Clettharra vitea, Swinh P Z S 1885, p 460, pl 27, fig 17, C \S S no 2428, Hmpsn Ill Het ix, pl 163, fig 24
- d Head, thorax, and abdomen dark fuscous, the last with dorsal tufts Fore wing with the basal half black, the outer half brown suffused with fuscous, subbasal and antemedial lines of raised scales which stop at the median nervure, medial and postmedial nearly straight lines of raised scales, a large remiform stigma with double black and fuscous outline Hind wing dark fuscous
- Q Head, thorax, and abdomen paler, the outer area of the fore wing suffused with greyish white Hind wing pale fuscous

Hab Bombay, Khandala, Ceylon Erp, 5 22, ♀ 24 millim

- 2243 Clettharra nigridisca, Hmpsn Ill Het viii, p 87, pl 146, fig 11
- Q Very pale brown Fore wing with a large lozenge-shaped black patch occupying the greater part of the medial area, and sending a fascia to the outer margin below the apex, a black streak on vein 2, two black specks on costa towards apex. Hind wing whitish

Hab Nilgiris Evp 24 millim

- 2244 Clettharra sceptica, Swinh P Z S 1885, p 461, pl 27, fig 6, C & S no 2430
- d Head, thorax, and fore wing pale grey, the last with a few darker scales forming traces of subbasal, medial, postmedial, and submarginal waved lines, a dark speck at end of cell and one at origin of vein 2, a series of marginal specks. Abdomen and hind wing pale tuscous

Hab Bombay, E Pega, Andamans Eip 21 millim vol 11 2c

2245 Clettharra apicalis, n sp

d Head, thorax, and fore wing whitish, irrorated with dark scales, abdomen pale brown. Fore wing with a dark patch at base of costa and blackish patch at base, a black speck below angle of cell, some reddish suffusion beyond the cell, traces of antemedial, postmedial, and submarginal waved lines, a marginal series of black specks. Hind wing whitish, the outer area suffused with fuscous

Hab E Pegu (Doherty) Evp 30 millim Type in coll Elwes

2246 Clettharra punctata, Swinh Trans Ent Soc 1890, p 236, pl 7, fig 15

Very pale reddish brown Fore wing with three obliquely placed subbasal black specks, and another below end of cell, indistinct ante- and postmedial waved lines, the former with a fuscous patch beyond it on the costa, a sinuous submarginal series of black specks and marginal series, a fuscous spot at apex Hind wing brownish fuscous, darkest towards outer margin

Hab Sikhim, Bhután, Nágas, Rangoon, Tenasserim Erp

22 millim

2247 Clettharra triangularis, n sp

d Ochreous white Fore wing irrorated with a few black scales, a dark brown triangular patch on centre of inner margin, a curved line from the centre of costa to near outer angle, the apical area beyond it dark brown Hind wing with the apical area slightly suffused with fuscous

Hab Dunsiri Valley, Assam (Doherty) Erp 20 millim Type

in coll Elwes

- B Hind wing with veins 3 and 4 from cell, palpi short and slight 2248 Clettharra ænea, Swinh P Z S 1884, p 520, pl 48, fig 1, C & S no 2405
- Q Fuscous brown Fore wing with traces of subbasal, antemedial, and submarginal waved bands Hab Karáchi Eap 24 millim
- SECT III Male with the collar forming an erect peak, hind wing with a tuft of long hair from below the costa, the median nervure tufted

2249 Clettharra floccifera, n sp

Very pale red-brown, collar dark at centre, anal tuft jetblack below. Fore wing with the inner area suffused with fuscous, taint traces of antemedial and medial oblique lines from the costa, the postmedial line represented by dark streaks on the veins, some dark specks on the cilia. Hind wing white

Hab Nágas, Tenasserim (Doherty) Evp. 22 millim Type

m coll Elwes

Genus SARROTHRIPA.

Sarrothripa, Curt Brit Ent 1, fig 29 (1824) Axia, Hubn Verz p 395 (1818, non descr) Symitha, Wih Cat xxxv, p 1731 (1866) Subrita, Wih Cat xxxv, p 1748

Type, S revayana, Scop, from Europe

Range Nearctic region, Europe, Sikhim, Nága Hills, Ceylon,

Pegu, Java, Borneo

Palpi very long, obliquely porrect, and heavily scaled Antennæ minutely ciliated in male. Fore leg with the femur and tibia fringed with very long hair. Fore wing long and narrow, the apex bent downwards, veins 3, 4, 5 from near angle of cell, 6 from below upper angle, 7 from upper angle, 8, 9, 10 stalked Hind wing with veins 3 and 4 stalked, 5 from angle of cell, 6 and 7 from upper angle, 8 from middle of cell

2250 Sarrothripa sinuosa, Moore, Lep Ath p 289

Grey The fore wing crossed by numerous indistinct waved lines, of which the double irregular ante- and postmedial are the most distinct, a sinuous series of submarginal black specks, a diffused fuscous patch on middle of costa Hind wing pale fuseous

In the E Pegu specimen the markings are darker, the costal patch blackish, with a white spot beyond it between the postmedial and submarginal lines

Hab Sikhin, Nagas, E Pegu Erp 26 millim

*2251 Sarrothripa fasciosa, Moore, Lep Atk p 289

Q Grey-brown Fore wing with a brown subbasal and two antemedial slightly outwardly oblique bands, an erect medial sinuous line, an excurved waved postmedial line with some dark suffusion beyond it, a submarginal sinuous fuscous band, a pale-edged lunule at end of cell Hind wing pale fuscous

Hab Sikhim, Exp 25 millim

2252 Sarrothripa indicatana, Will Cat xxviii, p 333, Hmpsn Ill Het ix, pl 163, fig 13

Head and thorax whitish, much suffused with black Fore wing



Fig 215 - Sarrothripa indicatana, & 1.

grey, irrorated with fuscous, indistinct antemedial, medial, and 2 c 2

postmedial double waved lines, large blackish ante- and postmedial patches on the costa, and one on the middle of inner margin. white medial and apical costal patches, the former with two black specks on it, a submarginal maculate waved line Abdomen and hind wing pale fuscous

Hab Ceylon, Nágas Exp 20 millim

2253 Sarrothripa nolalella, Wik Cat xxxv, p 1731, Hmpsn Ill Het 1x, p 163, fig 6 Sariothripa indica, Feld. Reis Nov pl 106, fig 19, C & S no 2429

Differs from indicatana in the antemedial, medial, and postmedial lines being better defined, the last curved but not waved, the white medial and black postmedial patches on the costa absent, also the black patch on inner margin, the waved submarginal line not so prominent Hind wing dark fuscous

Hab Ceylon, Java Eap 22 millim

Subfamily EUTELIINÆ.

Palpi with the 2nd joint straight, abdomen longer than the hind wing, with a long tubular or paired anal tufts Fore wing increasing in width to outer margin, veins 8 and 9 anastomosing to form the areole Hind wing with veins 3, 4, 5 from lower angle of cell, 5 being fully developed, veins 6, 7 from upper

Larvæ with 4 pairs of abdominal prolegs

Key to the Genera

A Abdomen with a long tubular anal tuft

a Antennæ of normal length
b Antennæ almost as long as fore wing

2 ANUGA, p 380 3 EUTELIA, p 390 B Abdomen with paired anal tufts

1 INGURA, p 388

Genus INGURA.

Ingura, Guen Noct 11 p 309 (1852)

Type, I lunodes, Guen, from America Range Nearctic, Neotropical, and Oriental regions, Friendly Islands

Palpi upturned, reaching just above vertex of head, thorax smoothly scaled, abdomen with tuft on 1st segment and very long, Fore wing with with a large anal tubular tuft especially in male the costa nearly straight, the apex nearly rectangular, the outer margin obliquely curved, the inner margin lobed near base

In the typical group (Sect I) the palpi are hairy, the antennæ

of male bipectinated to two-thirds length, the tibia hairy

SECT II Palpi nearly naked, antennæ of male pectinated for twothirds length, fore tibiæ with a tuft of long hair from the femore-tibial joint

A Antennæ of male with the branches on the outer side very short

2254 Ingura subapicalis, Will Cat xii, p 883, C & S no 1199 Ingura recurrens, Will Cat xi, p 1779

Dark fuscous greyish brown Fore wing with double dark ante-

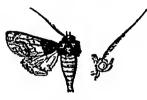


Fig 216
Ingura subapicalis, 5

medial line incurved below the cell, minute and very indistinct orbicular and reniform spots, an obscure waved medial line, a double postmedial line highly angled outwards beyond the cell, with a chocolate patch beyond it on the costa, traces of a pale waved submarginal line, a lunulate marginal line. Hind wing with the basal area pale, the veins and outer area fuscous, a pale patch at anal angle.

Hab NW Himalajas, Karáchi, Calcutta Emp, 5 28,

♀ 36 millim

B Antennæ of male bipectinate, the branches stiff

2255 Ingura cristatrix, Guen Noct 11, p 313, C & S no 1198

Head, thorax, and abdomen brownish grey Fore wing redbrown, an oblique dark line from lower angle of cell to inner margin near base, the area inside it pinkish ochreous, a speck at lower angle of cell and obscure line from it to inner margin, a postmedial line highly excurved to near outer margin, then bent inwards to near lower angle of cell and inner margin, the area inside it pinkish ochieous, apex grey or ochreous, an indistinct highly dentate submarginal line. Hind wing whitish, more or less suffused with brown, and with a pale patch at anal angle.

Hab Nilgiris, Andamans, Java, Friendly Islands Eip 30-36 millim

Genus ANUGA

Anuga, Guen. Noct 11, p 307 (1852) Piada, Will Cat xv, p 1746 (1858) Cœcila, Will Cat xv, p 1824 (1858) Speisara, Will Journ Linn Soc vii, p 174 (1864)

Type, A constructa, Guen
Range China, Sikhim, Malabar Coast, Andamans, Borneo,

Palpi upturned, the 2nd joint not reaching the vertex of head and fringed with hair in front, the 3rd short and naked, vertex of head with ridges of hair, antennæ very long, with uniseriate

short branches in male. Thorax and abdomen smoothly scaled, the latter long with tubular anal tuft. Fore wing very long and narrow, the apex rounded, the outer margin oblique, the cilia crenulate, male with a narrow costal fold acting as retinaculum. Hind wing with the cilia crenulate, the outer margin excised towards anal angle.

2256 Anuga constricta, Guen Noct 11, p 308, C & S no 2208
Piada multiplicans, Wlk Cat xv, p 1747, Hmpsn Ill Het viii,
pl 143, fig 7, C & S no 1878
Spersara glaucopoides, Wlk Jown Inn Soc vii, p 175
Cœcila complexa, Wlk Cat xv, p 1825

Grey, suffused with reddish fuscous, abdomen with the dorsum paler, except the penultimate segment. Fore wing with waved



Fig 217 Anuga constructa, I

segment Fore wing with waved subbasal line, double waved ante-medial line, single medial, double postmedial, and single submaignal lines, a speck at middle of cell, and black and chestnut lunule at end of it, the outer area fuscous, with a series of marginal black specks Hind wing with indistinct medial and postmedial ochreous lines only developed towards inner margin, a large ochreous marginal patch

towards analangle, a series of black and ochreous marginal specks, underside with large deep black cell-spot and three postmedial waved lines, the outer with ochreous patch on it towards analangle

The form multiplicans has the fore wing more variegated with ochreous, hind wing with the ochreous patch above anal angle large

Hab Hongkong, Canara, Nilgiris; Andamans, Singapore,

Borneo, Java Exp, o 46, 2 50 millim

2257 Anuga lunulata, Moore, P Z S 1867, p 62, C & S no 2209

Differs from constructa in the fore wing having the costal area ochreous, the waved lines blackish and minutely dentate, the orbicular a small ring-spot, the reinform indistinct. Hind wing with the medial line more distinct, the patch at anal angle smaller, rufous at margin, and with black specks inside it, underside with the cell-spot small

Hab Sikhim Exp 40 millim

Genus EUTELIA.

Eutelia, Hubn Verz p 259 (1818) Eurhipia, Boisd Ind Meth p 73 (1829). Penicillaria, Guen Noct 11, p 302 (1852) Iargalla, Will Cat x111, p 1007 (1857) Cryassa, Will Cat xv, p 1745 (1858) EUTELIA 391

Type, E adulatria, Hubn, from Europe

Range N and S America, throughout India, Ceylon, and

Burma, Andamans, Java, Australia

Differs from Inguia in the thorax and abdomen being typically stouter, the latter with a pair of anal tufts and extremely slight dorsal tufts on medial segments

SECT I (Targalla) Antennæ of male almost simple

A Fore wing with the outer margin slightly angled, the cilia crenulate, tibia hairy

2258 Eutelia delatrix, Guen Noct 11, p 304, C & S no 2193
Penicillaria palliatrix, Guen Noct 11, p 305
Penicillaria ludatrix, Wilk Cat xx, p 1773
Targalla infida, Wilk Cat x11, p 1008, C & S no 2194, Moore,
Lep Ceyl 111, pl 151, figs 6, 6 a (laiva)
Cryassa bifacies, Wilk Cat xx, p 1745, Moore, Lep Ceyl 111,
pl 151, figs 5, 5 a, C & S no 2192
Eutelia repleta, Wilk Cat xx111, p 821, C & S no 2195
Lutelia inipleta, Wilk Cat xx111, p 822
Eutelia plusioides, Wilk Cat xx111, p 822
Luthipia piætexta, Feld Reis Nov pl 111, fig 24

Dull red-brown Fore wing with the basal half dark, bounded

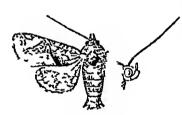


Fig 218 Eutelia delatris, J

by a slightly oblique line with whitish edge, the outer area paler red-brown, with a triangular chocolate patch before aper with pale edges and ree pale specks on it, the reniform trow and grey, traces of very numerous waved lines. Hind wing dark fuscous brown, the inner margin and vein 2 with some rufous specks on them, the cilia rufous. Underside with the basal and inner areas.

paler, fore wing with some grev towards apex and two postmedial lines, hind wing with black cell-spot and three minutely waved lines

The form palliatrix sometimes has, beyond the cell of fore wing slight dark marks, which may, however, be quite absent, in delative there is a large dark triangular mark beyond the cell and a dark speck on inner margin, bifactes has an olive tinge and is much more variegated, the reniform normally white and quadrate

Larva green, the sides paler, a slender subdorsal whitish line and series of small lateral spots, or the line may be yellow with another line between the spiracles, which are brown, with a tew short hairs from them. Pupa in a slight cocoon under leaves

Hab Throughout India, Ceylon, and Burma, Java, Australia Exp 30-34 millim

B Fore wing with the outer margin not angled, the cilia noncrenulate, tibia almost naked

2259 Eutelia deleta, Hmpsn Ill Het viii, p 81, pl 146, fig 15

Greyish fuscous brown, head and metathorax dark, palpi with a pale spot at base of 2nd joint in front, base of abdomen pale above. Fore wing greyish, the outer area suffused with brown, traces of several oblique lines, a sinuous postmedial double line angled below costa and excurved round end of cell, then oblique to centre of inner margin. Hind wing dark fuscous brown, the underside pale, with waved lines on outer area.

Hab Sikhim, Nilgiris, Ceylon Eap 24 millim

2260 Eutelia cinctipalpis, Wlh Cat xxxiii, p 820, Hmpsn Ill Het 1x, pl 163, fig 16, C & S no 2202 Ægilia angulata, Moore, Lep Ath p 146, C & S no 2382

Differs from deleta in the lines of the fore wing being less oblique and more waved, the postmedial line not better defined than the others not angled below the costa, palpi with pale spots on 2nd joint in front

Hab Sikhim, Manipur, Nagas, Ceylon Erp, ♂ 30, ♀ 28

millim

2261 Eutelia albiceps, n sp

of Palpi whitish, black at base, the vertex of head whitish, thorax dark purplish brown, abdomen dark red, with the base purplish. Fore wing with the basal half dark purplish with indistinct subbasal line, obliquely curved green antemedial line, and bounded by the pale elongate reniform and a double dark line from median nervure to inner margin, the outer area pale purplish fuscous, with three indistinct rufous waved postmedial lines angled below the costa, and with a large black V-mark on them beyond cell, a triangular rufous patch on costa before apex, with a green spot below it, an indistinct waved submarginal line. Hind wing dark fuscous, with traces of a pale postmedial line and some rufous patches near anal angle, underside greyish, with cell-spot and three waved lines.

Hab Tenasserim Valley (Doherty) Erp 22 millim Type in

coll Druce

2262 Eutelia Obscura, Moore, Lep Ath p 146, C & S no 2384

Head and collar chocolate, thorax dark purplish red-brown, abdomen paler Fore wing dark fuscous red-brown, the costal area purplish, a rufous speck in cell, some black and rufous strigge on the apical part of outer margin

Hab Sikhim, Nagas, Borneo Erp 30 millim

EUTELIA 393

2263 Eutelia medufascia, n sp

Olive-brown, base of abdomen with a pale band. Fore wing olive-green, a double antemedial curved line, a pale medial band, a double postmedial line excurved beyond cell, some short streaks on outer area, a pale dentate submarginal line. Hind wing dark fuscous, with a pale speck on outer margin at yein 2

Hub E Pegu (Doherty), Perak (Kunstler) Exp 22 millim

Type in coll Elwes

2264 Eutelia albomaculata, n sp

P Fuscous red-brown, abdomen with pale basal band Fore wing with traces of double anter and postmedial lines, dentate submarginal line, and dark spot at end of cell. Hind wing with the basal half pale, the outer fuscous

Hab Sikhim (Elwes) Exp 22 millim Type in coll Elwes

SECT II (Pencellaria) Antenna of male seriate, with fascicles of long cilia, the cilia of fore wing non-crenulate

2265 Eutelia jocosatrix, Guen Noct 11, p 304, Moore, Lep Ceyl 111, pl 151, figs 8, 8 a (larva), C & S no 2199

Dark purplish red-brown Fore wing with traces of subbasal line, an indistinct antemedial line angled on median nervure, a postmedial line angled beyond cell, with chocolate below the angle, and joined by a chocolate patch from costa inside the indistinct submarginal angled whitish line, a pale streak and slight fold from centre of cell to outer margin. Hind wing white, with dark cell-spot, the outer area purplish brown, underside with the cell-spot very prominent and black.

Laiva green, with sublateral dark strie, the somites with small purple spots and a subdorsal series of larger spots, a lew

hairs from the spiracles Food-plant Terminalia belerica

Hab Throughout India and Ceylon, Java Eap 30 millim

2266 Eutelia maculata, Butl Ill Het vii, p 71, pl 130, fig 5

Differs from *jocosatria* in the fore wing having the antemedial line on a diffused ochreous band with a greyish-white line inside it, a white line beyond the postmedial line, with a black spot below its angle, a black speck in the angle of the inner line, no chocolate patches, some bluish grey inside the submarginal line above outer angle. Hind wing with a whitish streak above anal angle

Hab NW Himalayas Evp 30 millim

394 Kochudæ

SECT III Antennæ of male bipectinate A Fore wing with the cilia non-cienulate

2267 Eutelia nugatrix, Guen Noct 11, p 303, pl 14, fig 7, C & S
no 2201

Penicillaria lineatrix, Wilk Cat xx, p 1776, C & S no 2200 Eutelia simplex, Wilk Cat xxxii, p 824

Differs from jocosatria in the collar being slightly fringed with grey. Fore wing with the lines paler and more prominent, the remiform prominent the postmedial line excurved round cell, and without chocolate on it, the chocolate inside the submarginal line in the form of a short band, a small patch above outer angle. Hind wing with a chocolate patch on the margin near anal angle, underside with the outer area ferruginous.

In the form lineatria the submarginal line of fore wing is white and prominent, with a slender white line inside it, of which there

are only traces in the typical form

Hab Throughout India and Ceylon, Andamans Exp 30 millim

2268 Eutelia fulvipicta, n sp

3 Differs from nugatrix in the head, thorax and base of abdomen being suffused with orange-fulvous, the abdomen with white dorsal spot at centre. Fore wing with the inner basal half orange-fulvous, and a large patch of that colour on the costal area before apex the costa with small white spots at antemedial line, centre and submarginal line, and specks towards apex, some grey submarginal suffusion near outer angle. Hind wing with the basal area yellowish, the outer purphish band broader, the underside without ferruginous suffusion.

Hab Naga Hills, 3000 feet (Doherty) Erp 30 millim Type

in coll Elwes

2269 Eutelia apicifascia, n sp

Q Head and thorax rufous brown, abdomen pale Fore wing dark red-brown, the basal half variegated with pinkish and dark marks, an otherous spot at end of cell a curved and waved postmedial whitish line double at costa, where it is joined by a broad pale fawn streak from apex, an indistinct submarginal pale dentate line, the apex plum-coloured, a marginal series of black specks. Hind wing with the basal area pale, the outer fuscous, with dark specks on inner margin and vein 2, cilia rufous. Underside suffused with red fore wing with double crenulate postmedial line, hind wing with cell-spot, waved medial line, and double crenulate postmedial line.

Hab Bombay (Leth) Erp 30 millim Type in B M

EUTELIA 395

B Fore wing with the cilia crenulate

2270 Eutelia inextricata, Moore, Lep Ath p 147, C & S

Head and collar chestnut, thorax dark red-brown, with white lines, abdomen fuscous, with rufous dorsal marks on 1st segment, then some long white hair and rufous tufts on distal segments, some literal rufous marks. Fore wing pale blown, some white suffusion and curved white lines on basal area, reniform with white outline—three sinuous postmedial lines excurved beyond cell, the inner with crimson below costa and at middle and metallic green at inner margin, the two outer lines with orange spots at inner margin—the outer margin with a series of black specks and metallic-green spot at centre, with some crimson below it—Hind wing with the basal area semihvaline white, the outer area tuscous blown, with a white streak at anal angle, and a marginal series of dark strixe.

Hab N China, NW Himalayas, Sikhim, Assam, Ceylon Exp 32-40 millim

2271 Eutelia excitans, Butl P Z S 1886, p 381, C & S no 2198

Differs from *inerticata* in the collar being white and fuscous, the thorax pale red, the abdomen fuscous. Fore wing pale red, with more white on the basal costal area, the markings on the postmedial line and outer margin much paler. Hind wing with some white submarginal spots on the dark band and some pale red on the centre of margin.

Hab NW Himalayas Exp 44 millim

- SECT IV Palpi nearly naked, antennæ of male serrate and highly fasciculate for two-thirds length, no tuft on fore leg
- 2272 Eutelia dulcilinea, Wik Journ Linn Soc vii, p 66
 Eutelia dimidiata, Wik Journ Linn Soc vii, p 66
 Penicillaria chalybsa, Hmpsn Ill Het viii, p 80, pl 146, fig 1

Head white and black, thorax and abdomen pale slate-colour Fore wing pale slate-colour, with a dark basal speck, a white and black antemedial line angled below costa, an indistinct angled medial line, the reniform dark, with white edge, some white specks on costa towards apex, a pale indistinct submarginal line with a dark triangular patch inside it at costa and subapical black V-mark Hind wing blackish, the basal area pale, indistinct medial and submarginal lines, the latter with whitish outside it at costa and towards anal angle, some whitish marks on margin

Hab Sikhim, Nilgiis, Ceylon, Borneo Evp 28 millim

SECT V Antenna of male with short fasciculated cilia, thorax and abdomen more slender

2273 Entelia discistriga, Will Cat xxxiii, p 823, C & S no 2203

Head, thorax, and abdomen clothed with pale and dark scales, the collar with a chestnut tinge. Fore wing clothed with pale and dark brown and chestnut scales, numerous ill-defined lines on the basal area, a pale patch with a dark hoop above it at end of cell, the postmedial dark line with a quadrangular sinus beyond cell and with traces of other lines beyond it, an indistinct irregularly waved submarginal pale line. Hind wing whitish, the veins and outer area fuscous

Hab Aden, Karáchi, Nilgiris Erp 34 millim

2274 Eutelia favillatrix, Wll. Cat xv, p 1778, C & S no 2204, Hmpsn Ill Het ix, pl 163, fig 15

Differs from discisting in the head, thorax, abdomen, and fore wing being variegated with crimson, orange, and otherous scales, some metallic-blue scales on metathorax, a whitish dorsal patch on centre of abdomen. Fore wing with a raised tuft of brown scales at centre of cell and crimson tuft at end of it

Hab Throughout India and Ceylon Exp 28-millim

Subfamily STICTOPTERINÆ

Palpi slender and of moderate length. Abdomen hardly longer than the hind wing. Fore wing increasing in width to outer margin, usually long and nairow, with raised tufts more or less developed, vein 6 trom angle of cell, 8 given off from 7 and anastomosing with 9 to form an arcole. Hind wing usually hvaline at base, with vein 5 from the lower angle and fully developed

Larvæ with 4 pairs of abdominal prolegs

Key to the Genera

A Antennæ of normal length

a Fore wing hooked at outer angle
b Fore wing not hooked at outer angle
a' Abdomen smoothly scaled
b'. Abdomen with dorsal tufts on proximal segments

B Antennæ very long
a Fore wing of moderate breadth
a' Fore wing with the chia non-crenulate, frenulum divided in female
b' Fore wing with the chia crenulate, frenulum single in female
b Fore wing long and nairow

a' Fore wing extremely long b' Fore wing shorter

3 Risoba, p 398

5 Ѕтістортға, р 400

[p 397

4 ODONTODES, p 400

MACEDA, p 397
 CYMATOPHOROPSIS,

6 SADARSA, p 404 7 GIRTONA, p 404

Genus MACEDA

Maceda, Will Cat xiii, p 1140 (1857) Calduba, Wlk Cat xv, p 1815 (1858)

Type, M mansueta, Wlk

Range Cevlon, Borneo, N Australia

Palpi slender, and reaching just above vertex of head, antennæ ciliated, abdomen with coarse hair on dorsum of proximal segments, tibize nearly naked Fore wing without raised tufts, the apex almost rectangular, male with the retinaculum bar-shaped, the end of the cell rounded and diluted, with a small patch of ribbed hyaline membiane, probably for stridulation with the spines Hind wing with veins 3 and 4 stalked of the mid tarsi

2275 Maceda mansueta, Wil Cat xm, p 1141, Moore, Lep Ceyl m, pl 154, figs 4, 5, C & S no 2233 Calduba obtenta, Wik Cat v, p 1815

Rather pale red-brown, abdomen fuscous, with slight white

Fig 219 Maceda mansueta. A

rings Fore wing with short subbasal line, oblique nearly straight antemedial line, spot at end of cell, waved postmedial lineexcurved beyond the cell, a sinuous series of submarginal specks Hind wing fuscous black, with an ill-defined white patch on the disk, the margin white towards anal angle

Hab Ceylon, Andamans, Borneo, N Australia Erp 34 millim

Genus CYMATOPHOROPSIS, nov

Type, C sinuata, Moore

Range Himalayas

Palpi obliquely upturned, and not reaching vertex of head, antenuæ simple in male, metathorax with slight tufts, abdomen with tufts on the two proximal segments, tibic moderately hairy Fore wing with the apex rounded, no raised tufts

2276 Cymatophoropsis sinuata, Moore, P Z S 1879, p 405, C & S no 1178 Risoba confluens, Moore, Lep Ath p 92, C & S no 1634

Head and thorax dark red-brown, the collar white, abdomen Fore wing black-brown, with a large basal white patch with obliquely waved outer edge and a large brown patch on it. a series of similar marginal spots, the one at aper large, and that at outer angle very large, megular, and almost joining the basal 398 NOCTUIDÆ

patch Hind wing dark fuscous Underside with cell-spot and postmedial line to each wing



Fig 220 - Cymatophoropsis sinuata, & 1

The form sinuata has the collar and patches of fore wing suffused with brown, which in confluens are white Hab Simla, Sikhim. Exp, 334, 240 millim

Genus RISOBA

Risoba, Moore, P Z S 1881, p 328 Pitrasa, Moore, Lep Ath p 94 (1882)

Type, R repugnans, Wlk

Range China, throughout India, Ceylon, and Burma, Java, Borneo

Palpi upturned, and reaching vertex of head, antennæ almost as long as fore wing, with fasciculated cilia in male, thorax and abdomen smoothly scaled, the latter long, tibiæ smooth and without spines. Fore wing without raised tufts, the apex rectangular, the cilia non-crenulate, the retinaculum of male barshaped, and the claspers large and elongate

2277 Risoba repugnans, W7L Cat ix, p 9, Moore, Lep Ceyl in, pl 144, fig 1, C & S no 1639

Head brown, thorax and abdomen brownish white Fore wing



Fig 221
Risoba repugnans, & \frac{1}{2}

brownish grey, a hasal white patch slightly suffused with bright rufous, indistinct waved antemedial, postmedial, and submarginal lines, the orbicular a speck, the reniform white, with rufous centre and edge, a large apical rufous patch with whitish lunule on its inner side, some rufous patches with white edges

on outer part of inner margin, a marginal series of dark specks Hind wing white, with the outer area fuscous, underside with cellspot

Hab "N India", Nilgiris, Ceylon Eap 40 millim

2278 Risoba obstructa, Moore, P Z S 1881, p 328, id Lep Ceyl m, pl 144, figs 2, 2 a, b (larva), C & S no 1637 Risoba vialis, Lep Ath p 91, pl 4, fig 1, C & S no 1640

RISOBA 399

Risoba prominens, Muore, P Z S 1881, p 829, C & S

Head and thorax brown, tegulæ whitish Fore wing whitish, irrorated with brown, an oblique white basal band, the costal area just beyond it red-brown, the reniform round, with a dark speck at centre, a postmedial oblique double line slightly incurved below vein 4, the area beyond it red-brown with traces of a submarginal waved line, some apical dark streaks, a series of marginal brown and white specks Hind wing semihyaline white, with broad brown marginal band

Larva purplish brown, palest at sides, dorsal and lateral white speckled lines, a sublateral series of whitish streaks, a series of black dots between the lateral and sublateral lines, a conical prominence on anal somite Food-plant Quisqualis

Hab N China, throughout Peninsular India, Ceylon, and

Burma, Malacca, Java Eap 28-36 millim

2279 Risoba diversipennis. Wil. Cat xv, p 1750, C & S no 1635 Risoba basalis, Moore, Lep Ath p 91, C & S no 1633

Differs from obstructa in the costal area of fore wing being whitish as far as end of cell, a white quadrate spot below the apical brown patch, a crenulate marginal line

Hab Sikhim, Khásis, Ceylon, Moulmein, Malacca, Borneo

Erp 36 millim

2280 Risoba literata, Moore, P Z S 1881, p 329, C & S no 1636

Differs from diversipennis in the costal area of tore wing not being white, a straight oblique narrow postmedial white band obscuring the postmedial line

Hab Sikhim, Nilgiris Exp 38 millim

- 2281 Risoha variegata, Moore, Lep Ath p 94, pl 4, fig 2, C & S no 1645 Pitrasa vitellina, Moore, Lep Ath p 94, pl 4, fig 3, C & S no 1646
- Q Head and thorax brownish grew Fore wing olive-yellow, the costs suffused with reddish grey, a black speck at base, with an oblique black and white streak from it, a black speck at lower angle of cell an oblique postmedial series of dark specks, with a very obscure grey band inside them to lower angle of cell, an obscure apical streak and submarginal line, a marginal series of dark and pale specks. Hind wing pale, with broad fuscous outer band, underside with black lumile at end of cell
- d Fore wing purplish ochreous, the disk and outer area suffused with purplish grey, the series of specks developed into an obliquely waved line

Hab Sikhim Exp 38 millim

Genus ODONTODES

Odontodes, Guen Noct 111, p 50 (1852) Nedroma, Wlk Proc N H Soc Glasgow, 1, p 353 (1869) Burdra, Wlk Chu Undesc Het p 50 (1869)

Type, O aleuca, Guen

Range W Africa, throughout India, Ceylon, and Burma,

Antennæ very long and slender, palpi slender and upturned, the 2nd joint reaching vertex of head, the 3rd short, thorax smoothly scaled, abdomen with a tuft on first segment. Fore wing slightly arched towards apex, which is rectangular, the outer angle slightly hooked, slight tufts of raised scales.

2282 Odontodes aleuca, Guen Noct 111, p 51, C & S no 2369
Bijarda bolinoides, Wik Cat xv, p 1802, C & S no 2370
Steiria subfasciata, Wik Cat 1xxiii, p 922
Steiria quadristrigata, Wik Cat 1xxiii, p 923
Odontodes mordinata, Bull Ill Het vii, p 14
Nedroma ferruginea, Wik Pioc N H Soc Glasgow, 1, p 353
Burdria edemoides, Wik Chai Undesc Het p 50, C & S
no 2397

Dark red-brown Fore wing with short subbasal line, double



Fig 222 Odontodes alcuca, & 1

waved antemedial and waved and curved medial lines, a double dentate postmedial line excurved beyond cell, traces of a dentate submarginal line, the reniform large and indistinct. Hind wing fuscous red-brown, the basal area more or less hyaline, the outer area darkest, the cilia ochreous. Underside with the basal area of both wings pale, with the veins and cell-spot dark brown, the outer area dark brown.

Some specimens have the fore wing much more variegated, with some white beyond the medial line and in the double anter and postmedial lines, others have the reniform white, and others a broad pale fascia on inner margin to the postmedial line or outer angle, others, again, are pale with a broad black fascia from the base below cell, or the medial line may be inwardly bordered by black

Hab W Africa, throughout India and Burma Eip. 48 millim

Genus STICTOPTERA

Stictoptera, Guen Noct 111, p 51 (1852)
Dandaca, Will. Cat 1x, p 149 (1856)
Steiria, Will. Cat xiii, p 1135 (1857)
Ægilia, Will. Cat xiii, p 1138
Minica, Will. Cat xiii, p, 1139

Type, S cucullroides, Guen

Range Neotropical, Ethiopian, Oriental, and Australian regions Palpi slender and nearly naked, the 2nd joint reaching vertex of head, the 3rd long, antennæ very long and slender, thorax smoothly scaled, abdomen with dorsal tufts on proximal segments, tibiæ slightly hairy. Fore wing rather long and narrow, with the cilia crenulate, a small tuft of raised scales on the reniform. Frenulum of male very strong, single in female.

SECT I Fore wing of male produced at apex

2283 Stictoptera cucullioides, Guen Noct 111, p 52
Dandaca columba, Wik Cat 11, p 149, C & S no 1791
Stema subobliqua, Wik Cat 111, p 1136, Moore, Lep Ceyl 111,
pl 159, figs 4, 4 a (larva), C & S no 2365
Minica confluens, Wik Cat 111, p 1140
Stema signifera, Wik Cat 111, p 1140
Stema ferrifera, Wik Journ Linn Soc 111, p 174
Stema ferrifera, Wik Journ Linn Soc 111, p 175
Minica semialba, Wik Journ Linn Soc 111, p 175
Minica nigrilinea, Wik Journ Linn Soc 111, p 176
Stictoptera giisea, Moore, P Z S 1867, p 67, C & S no 2362
Briarda conturbata, Wik Proc Nat Hist Soc Glasg 1, p 354
Stema variabilis, Moore, Lep Ath p 164, C & S no 2367

d Head and thorax grey-brown, abdomen fuscous Fore wing grey-brown, with numerous indistinct waved lines, the orbicular and reinform stigmata indistinct, the latter with a few raised scales on it, a series of small marginal lunules. Hind wing opalescent hyaline, the veins and broad outer band fuscous, the cilia pale

The first set of forms is small cuculhoides having the ground-colour of fore wing rufous, with a giey fascia from base to

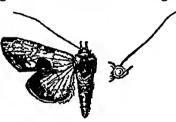


Fig 223 Stictoptera cucullioides, &

outer maigin occupying the greater part of the wing, this fascia in another form being ochreous white, in subobliqua=humeralis the basal half is ochreous, with black streaks on it as far as an oblique medial line, the outer area being greyer or in specimens from W Africa very dark, and the hyaline area of hind wing reduced In variabilis this basal area is pale

or dark rufous, and there are dark submarginal maiks, in confluens the basal area is smoky black, significa is more uniformly variegated with rufous, columba is green with rufous spots and with a large subbasal rufous patch

The second set of forms is larger grisea being grey marked with rufous ferrifera with a dark spot beyond the postmedial line, semialba with white blotches on the basal half, whilst in a Simla specimen the thorax is very dark with the patagra ochreous, the

fore wing reddish ochreous, suffused with dark red-brown especially

at apex and outer angle

Larva dusky olive-green, the head and anal somites yellowish, 2nd and 5th somites othreous above, dusky dorsal and subdorsal bands and a sublateral series of black spots. Food-plant Garcinia

Hab W Africa, throughout India, Cevion, and Burma, Singapore, Java Exp., 5 41-54, 2 36-46 millim

2284 Stictoptera striata, n sp

d Red-brown Fore wing with longitudinal narrow dark strenks on the costal area, an irregularly sinuous pale submarginal line with an ill-defined blackish fascia from below its centre to inner margin near base, a marginal series of dark strice. Hind wing opalescent hyaline, the veins, inner and onter areas fuscous

Hab Sikhim, 6000 feet (Moller) Exp 50 millim Type in coll Elves

2285. Stictoptera describens, Will Cat xin, p 1139, Hmpm Ill Het ix, pl 163, fig 11, C & & no 2383 Lophopteia xylinata, Will Cat xxxiii, p 920, C & & no 2381

Ferruginous brown Fore wing with numerous indistinct very oblique terruginous lines on basal area, a more distinct lumulate postmedial line, a whitish submarginal waved line. Hind wing with the basal central area opalescent semihyaline, the veins, costa, outer and inner areas fuscous. The form aylinata has fuscous blotches on fore wing

Hab Canara, Ceylon Exp 46 millim.

- 2286 Stictoptera denticulata, Wlk Cat xxxiii, p 919, C & S no 2361
- Q Differs from describens in the head, thorax, and fore wing being pale ochreous brown, the last with some black specks at lower angle of cell, and with the submarginal whitish line absent Underside ochreous and whitish, with a distinct marginal fuscous band to both wings

Hab Moulmein Exp 34 millim

2287. Stictoptera trajiciens, WTA Cat viii, p 1137, Moore, Lep Ceyl iii, pl 158, fig 12, C & S no 2366 Steiria equilinea, Wlh Journ Linn Soc vii, p 174.

Head and thorax dark red-brown, abdomen paler Tore wing dark red-brown suffused with greenish grey, especially on costal area, numerous erect indistinct waved lines, an erect postmedial line joined below cell by a curved line from the costa, an

indistinct irregularly dentate submarginal line Hind wing indescent-hyaline the veins and outer area fuscous Hab Ceylon, Borneo Exp 38 millim

2288 Stictoptera illucida, W71. Cat xxxiii, p 918, C & S no 2363 Stictoptera olivascens, Moore, Lep Atk p 164, C & S no 2264

Differs from trajecters in the fore wing being without the greenish-grey suffusion, double subbasal, ante- and postmedial fulvous waved lines, and single medial and submarginal lines. a leaden-grey band between the postmedial and submarginal bands, and some leaden grey on apical part of margin, the reniform large. Hind wing with the inner area fuscous. Some specimens have an ochreous patch at base of fore wing, others a ferruginous patch on central inner area.

Hab Formosa, Punjab, Ganjam, Moulmein Eup 34

 \mathbf{m}

2289 Stictoptera albodentata, Moore, Lep Ath p 165, C & S
no 2373
Grantone shall be a Rutl B Z S 1882 p 162 C & S no 2874

Gyrtona chalybea, Butl P Z S 1883, p 163, C & S no 2374

Differs from illucida in being dark fuscous brown, the lines of fore wing less distinct, no leaden band, a waved line just inside the margin often with minute white specks on it

One specimen has the ground-colour pale greenish

Hab NW Himalayas, Sikhim, Khásis, E Pegu. Evp 28 millim

SECT II Fore wing of male somewhat broader

2290 Stictoptera anthyalus, Swinh MS

Greyish fuscous brown Fore wing with double subbasal, anteand postmedial waved lines, the medial area suffused with fuscous, and with dark stries in and below cell, two submarginal single waved lines, the inner dark at costa Hind wing fuscous, without hyaline

Hab Khásis, Ganjam. Eap 34 millim Type in B M.

2291 Stictoptera costata, Moore, Lep Ceyl m, p 123, pl 159, fig 8, C & S no 2380

Head and thorax dark red-brown, abdomen fuscous Fore wing grey, with a black-brown costal fascia widest at middle, the inner area irrorated with black-brown, double subbasal, ante- and postmedial waved lines and single medial and two submarginal lines. Hind wing dark fuscous, with slight traces of hyaline on the disk between the veins

Hab NW Himalayas, Ceylon Evp 42 millim

Genus SADARSA

Sadarsa, Moore, Lep Ath p 164 (1882)

Type, S longipennis, Moore.

Range Sikhim

Palpi of moderate length, slender, and obliquely porrect, a sharp frontal tuft, antennæ minutely ciliated in male, a slight tutt behind the collar, and paired tufts on metathorax, abdomen with small dorsal tufts on first three segments, tibiæ naked. Fore wing very long and narrow, the apex produced, the outer margin oblique, and with slight tufts of raised scales. Hind wing ample, the outer margin excised below apex, veins 3, 4, 5 from close to lower angle of cell

SECT I Fore wing with the apex moderately produced and rounded

2292 Sadarsa tenuis, Moore, P Z S 1867, p 60, C & S no 2372

d Dark purplish red-brown Fore wing with numerous indistinct extremely oblique waved lines, the outer area without the purplish tinge. Hind wing with the basal area pale and semihyaline, the veins and outer area fuscous.

Hab Sikhim. Exp 40 millim

SECT II Fore wing with the apex extremely produced and acute 2293 Sadarsa longipennis, Moore, Lep Ath p 165, pl 5, fig 14, C & S no 2371

d Fuscous brown Fore wing with numerous indistinct

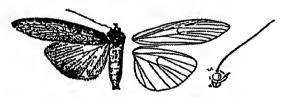


Fig 224 - Sadarsa longipennis, & }

oblique waved lines Hind wing with the basal area pale and semihyaline, the veins and outer area fuscous

Hab Sikhim. Eip 46 millim

Genus GYRTONA

Gyrtona, Wlk Cat xxvii, p 89 (1863) Clina, Wlk Cat xxxi, p 257 (1864)

Type, G proximalis, Wlk, from Boinco Range W. Africa, throughout India, Ceylon, and Burma, Borneo. Differs from Stictoptera in the palpi being porrect and more hairy, a large frontal tuft, antennæ with long cilia in male, abdomen without dorsal tufts. Fore wing with slight raised tufts at middle and end of cell

2294. Gyrtona hylusalis, Wil. Cat xxvii, p 93, Hmpsn Ill Het ix, pl 163, fig 18, C & S no 2376
Gyrtona nigrocinerea, Wil. Cat xxvii, p 94
Gyrtona dorsifascialis, Wil. Cat xxvii, p 95
Gyrtona strenualis, Wil. Cat xxvii, p 95
Gyrtona monilialis, Wil. Cat xxvii, p 97
Gyrtona phycisoides, Mooie, Lep Ceyl iii, p 125, pl 158, fig 8,
C & S no 2378
Nephopteryx demptella, Wil. Cat xxvi, p 1721
Nephopteryx acisalis, Wil. Cat xxvii, p 96, C & S no 4649
Gyrtona thoracia, Wil. Cat xxvii, p 96, Hmpsn Ill. Het ix, pl 163, fig 19, C & S no 2379

pl 163, fig 19, C & S no 2379
Othora subfasciata, Wik Cat axxiii, p 907, C & S no 2375
(part)

Dark or pale red-brown

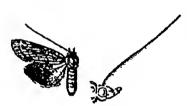


Fig 225
Gyrtona hylusalis, 5

Fore wing with indistinct double waved subbasal, ante- and post-medial dark lines, some tufts of raised scales on the antemedial line and on reniform Hind wing dark fuscous brown

Some specimens have grey patches on the inner area of fore wing before the ante- and postmedial lines, others have the basal and some the inner area ochreous, in thoracia the thorax is pale, the basal area of

fore wing almost black, the outer area ochreous white, blackish at outer angle

Hab Nilgiris, Ceylon Eup 18-30 millim.

2295 Gyrtona plumberfascia, n sp

A Head, thora, and abdomen fuscous brown Fore wing rather short and broad, the colour olive-green, a leaden patch at base, an antemedial leaden band, with a waved line and some tufts of raised scales on it, and with a nearly straight indistinct line beyond it, four dark specks near end of cell and a small leaden patch at upper angle, outer area leaden grey, with minutely waved postmedial and two nearly straight submarginal rufous lines. Hind wing dark brown

Hab. S Andamans Exp 22 millim Type in B M

2296 Gyrtona pusilla, Moore, Lep Ath p 289

Differs from plumberfascia in being pale greyish brown without the olive tinge. Fore wing without plumbeous markings, the

lines slightly less parallel, traces of a medial band Hind wing paler, the interspaces more hyaline

Hab Acera, W Africa, Calcutta, Nágas Esp 22 millim

2297 Gyrtona dorsalis, Will Cat xxvii p 98, Moore, Lep Ceyl in, pl 158, figs 10, 11, C & S no 2375
Othora includens, Will Cat xxxiii, p 909
Ariola bryophilina, Feld Reis Nov pl 120, fig 10.

Differs from hylusalis in being larger and pale red-brown, fore

wing with the waved lines more indistinct

In dorsalis there are two black patches on the antemedial line of fore wing, whilst includens has a large oval antemedial black mark

Hab. Nilgiris, Ceylon, E Pegu. Exp 32 millim

2208. Gyrtona exsicca, Suinh Trans Ent Soc. 1891, p 149, pl 8, fig 5

Differs from hylusalis in being uniform dull brown, the lines very indistinct, the antemedial line dentate. Hind wing with the basal area semihyaline, the outer fuscous brown

Hab. S Canara Exp 28 millim

2299 Gyrtona lapidaria, Wlk Cat xxxi, p 257, Hmpsn Ill Het viii, pl. 143, fig 20, C & S no 734

Clina rufina, Hmpsn Ill Het viii, p 86, pl 146, fig 12

Clina basalis, Hmpsn Ill Het viii, p 86, pl 146, fig 5

Pale ochreous brown Fore wing with traces of waved lines, some dark submarginal marks and marginal series of black specks

Hind wing fuscous brown.

The form lapidana has a rufous streak on inner margin of fore wing, rufina has a dark streak on median nervure, the rufous streak widening to outer margin, in basalis the basal area is ochreous, with a large black patch on it, the medial area suffused with fuscous

Hab Nilgiris Exp 24-30 millim.

Subfamily GONOPTERINÆ.

Palpi with the 2nd joint straight, abdomen longer than the hind wing, stout and smoothly scaled. Fore wing increasing in width to outer margin, the retinaculum sometimes bar-shaped in male. Hind wing with veins 3, 4 usually stalked, 5 from or from close to lower angle of cell and strongly developed.

Larvæ with the 4 pairs of abdominal prolegs developed, except in Cosmophila erosa, which has 3 pairs. Several genera have

the thoracic somites very much dilated

Key to the Genera

A Fore wing with veins 8 and 9 anastomosing to form the aleole		
a Hind wing with veins 3 and 4 from cell or hardly stalked		
a' Fore wing with the outer margin very	_	0 410
obliquely rounded and crenulate b' Fore wing with the outer margin slightly	3	Ossonoba, p 413
curs ed		
a ² Fore wing with the outer margin evenly curved or angled at vein 3		
a ³ Fore wing with the areole short	1	Сояморника, р 408
b^3 Fore wing with the areole long b^2 Fore wing with the outer margin	13	Carea, p 421
strongly hooked at vern 3		[p 416
a Palpi with the 3rd joint long b Palpi with the 3rd joint minute		Goniocraspidum, Oxygonitis, p 415
b Hind wing with veins 3, 4 on a long stalk		, <u>F</u>
a' Fore wing with the outer margin evenly curved		[p 420
a ² Palpi obliquely porrect	12	TYMPANISTES,
b ² Palpi upturned a a ³ Fore wing with vein 6 from above		
angle of cell, the areole very long	10	CAPOTENA, p 419
b ³ Fore wing with vein 6 from or from below angle of cell, the areole		
ahort	71	[p 420
a^4 Palpi with the 3rd joint minute b^4 Palpi with the 3rd joint well	11	rseudelydaa,
developed	9	CHURIA, p 417
b' Fore wing with the outer margin angled or irregular		
a ² Hind wing with a deep indentation in outer margin between veius 1 and 2	1	Автнізма, р. 413
b ² Hind wing with the outer margin	*	ARIHIDMA, P. 410
evenly curved a ³ Hind wing with the costa arched		
at base, the tibiæ tufted	5	FALANA, p 414
b3 Hind wing with the costa evenly cuived, the tibia naked	2	[p 412 PSEUDOGONITIS,
B Fore wing with vein 10 anastomosing with	~	2 02020 00112229
8 and 9 to form the arcole a Hind wing with veins 3, 4 from cell, or		
hardly stalked, 5 from above angle of		[p 427
b Hind wing with veins 3, 4 stalked, 5 from		GELASTOCERA,
angle of cell or shortly stalked with 3		
and 4 a' Fore wing with the outer margin		
slightly excised below apex, the areole		Brins n 427
b' Fore wing with the outer margin		Beara, p 427
deeply indented below apex, the areole)	Ртуолота , р 424
laigei	TÆ	TIIONOITÀ L TET

C. Fore wing with no arcole, veins 8, 9, 10

a Hind wing with veins 3, 4 stalked, fore wing with the outer margin very irregular

b Hind wing with veins 3, 4 from cell D Fore wing with veins 7, 8, 9, 10 stalked

[p 425]
15 TORTRICIFORMA,
16 TINOSOMA, p 426
8 CLETHROPHORA,
[p 416]

Genus COSMOPHILA.

Cosmophila, Boisd Faun Ent Mad p 94 (1833) Lineopalpa, Guen Noct 11, p 290 (1852). Gonitis, Guen Noct 11, p 403 Rusicada, Will Cat viii, p 1006 (1857) Thalatta, Will Cat viii, p 996 (1857) Tiridata, Will Cat viviii, p 870 (1865) Dilemma, Will Cat viviii, p 863 Phalga, Moore, P Z 8 1881, p 375

Type, C erosa, Hubn

Range Nearctic and throughout the tropical and subtropical zones

Palpi upturned, the 2nd joint reaching vertex of head, the 3rd long and slender, a blunt frontal tuft, antenno minutely cliated in male or pectinated, thorax and abdomen smoothly scaled, tibio without spines. Fore wing with the apex produced and acute, the outer margin angled or produced to a point in the middle. Hind wing with vein 5 from below centre of discocellulars.

Larvæ with the thoracic somites not swollen

SECT I. (Lineopalpa) Fore wing long, with the outer margin oblique.

A. Antennæ of male crivated

2300 Cosmophila mesogona, Will Cat xiii, p 1002, Moore, Lep '
Ceyl iii, pl 153, fig 8, C & S no. 2244

Head and fore wing greyish red-brown, abdomen pale brown Fore wing varying from greyish red-brown to dark or bright red-brown, striated with grey, a short subbasal line, an antemedial grey and brown line bent outwards at median nervire, then almost straight to inner margin, two black specks at end of cell, a post-medial line angled below costa, then nearly straight to vein 4, where it is recurved to below end of cell, then nearly straight to inner margin, an indistinct diffused submarginal dark shade angled at centre, a marginal rufous line. Hind wing pale brown Underside with the costa and outer areas of both wings strated with red-brown

Hab Throughout India, Ceylon, and Burma, Java. Erp 42-44

millim

2301 Cosmophila sabulifera, Guen Noct 11, p 404
Gonitis involuta, Wik Cat viii, p 1003, Moore, Lep Ceyl 111,
pl 153, fig 7, C & S no 2241
Gonitis basalis, Wik Cat viii, p 1004
Gonitis propinqua, Butil P Z S 1884, p 497
Thidata colligata, Wik Cat vivii, p 870

Differs from mesogona in the antemedial line of fore wing being bent outwards between vein 1 and inner margin, the postmedial

line incurved beyond the cell

The form sabulifera has diffused black on the antemedial line of fore wing and between the postmedial and submarginal lines, a small orbicular spot usually present, and two specks conjoined into a remiform spot, in *involuta* the colouring is similar to mesogona

Hab Throughout Africa, Aden, India, Ceylon, and Burma

Erp 32-38 millim

2302 Cosmophila trilineata, *Moore*, P Z S 1883, p 21, pl 6, fig 1, C & S no 2246

Differs from mesogona in being much redder Fore wing with straight oblique subbasal and antemedial pale lines, a pale line on discocellulars

Hab Bombay Exp 40 millim

2303 Cosmophila fulvida, Guen Noct 11, p 397, Moore, Lep Ceyl 11, pl 155, figs 3, 3:a (larva), C & S no 2240
Gonitis metaxantha, Wlk Cat x111, p 1005, C & S no 2245
Gonitis guttanivis, Wlk Cat x111, p 1003
Gonitis combinans, Wlk Cat x111, p 1001
Gonitis commoda, Butl A M N H (5) 1, 1878, p 203
Gonitis privata, Wlk Cat xxx111, p 863
Gonitis revocans, Wlk Cat xx, p 1794
Gonitis vulpina, Butl Tr Ent Soc 1886, p 408
Gonitis xanthochroa, Butl Tr Ent Soc 1886, p 409
Gonitis inducens, Wlk Cat x111, p 1004
Diremma simulatrix, Wlk Cat x111, p 1004
Gonitis albitibia, Wlk Cat x111, p 1001, C & S no 2236
Rusicada nigritarsis, Wlk Cat x111, p 1006, Moore, Lep Ceyl 111, pl 155, figs 2, 2 a, b, c, d (larva)

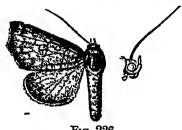


Fig 226
Cosmophila fulvida, 3

Head and thorax bright or dark ferruginous red-brown, abdomen reddish fuscous, fore tibia and 1st joint of tarsus white. Fore wing bright or dark ferruginous or yellowish red-brown, a short subbasal line, an antemedial line oblique from costa to below cell, then waved to inner margin, the orbicular a white speck, the reniform indistinct and often reduced

to two spots or to one white or dark spot at lower angle of cell, a

postmedial line waved from costa to vein 4, then excurved to lower angle of cell and waved to inner margin, a waved submarginal diffused line. Hind wing varies in colour from vinous red to dark brown, sometimes pale at base

The form metaxantha is dark vinous red, with yellow patches below base and end of cell of fore wing, xanthochioa is a yellowish torm, albitibia is dark red-brown or yellowish brown, the hind

wing very dark

Larva with 4 pairs of abdominal prolegs, a few short black hairs, colour black above, olive-yellow beneath, a subdorsal series of short transverse yellow streaks with a series of yellow specks above them, the stigmata black, head and legs pale red. In the form albitibia the larva is olive-green or grey, with dorsal and lateral yellow or whitish longitudinal lines, each somite dotted with black. Food-plant Waltheria indica

Hab Japan, China, throughout India, Ceylon, and Burma, Java. Australia, Solomons, Fiji, Samoa Eap 54 millim

2304 Cosmophila lineosa, Wik Cat xxxiii, p 862, C & S no 2243

Differs from the form albitibia in the antemedial line of fore wing being oblique from the costa to median nervure, where it is bent outwards, then straight to inner margin

Hab Sikhim, Nágas, Nilgiris Erp 54 millim

2305 Cosmophila horsfieldii, Guen Noct 11, p 291
Briarda varians, Moore, P Z S 1867, p 66, pl 6, fig 12, C & S
no 2341

Dark chocolate, the abdomen fuscous Fore wing with waved subbasal and antemedial lines on pale bands, the reinform with pale edges and constricted at centre, a postmedial slightly waved line on a pale band excurved beyond cell, a submarginal ochreous band suffused with white scales, sending a projection to the centre of outer margin and with dark spots and a patch towards miner margin. Hind wing purplish fuscous brown, the cilia chocolate, underside irrorated with white, and with a crenulate postmedial line.

In some specimens there is a large white patch on and beyond the remform, and a white streak on vein 1 from base to postmedial line

Hub Sikhim, Java Erp 44 millim

*2306 Cosmophila sinuosa, Moore, P Z S 1881, p 375, pl 37, fig 7, C & S no 2224

Brownish ochreous Fore wing with an indistinct waved antemedial line, a treble postinedial line and single submarginal line, the remitorin ochreous Hind wing with marginal lumulate line and some streaks above anal angle

Hab Sikhim Erp 34 milhin

B (Cosmophila) Antennæ of male ciliated and with bristles or bipectinated, the branches short and with bristles from their ends

2307 Cosmophila erosa, Hubn Zutr Samml exot Schmett 11, 19, figs 287, 288

Cosmophila vanthindyma, Boisd Faun Ent Mud 94, pl 13, fig 7, Moore, Lep Ceyl in, pl 155, figs 1, 1 a, b (laiva), C & S no 2234

Cosmophila indica, Guen Noct 11, p 396 Cosmophila auragoides, Guen Noct 11, p 397 Circedia variolosa, Will Cat 11, p 750 Circedia edentata, Will Cat 11, p 750

d Head and thorax orange-yellow, irrolated with brown, abdomen brown above. Fore wing fuscous, suffused with pulplegiety, a large yellow patch irrolated with red occupying the whole basal halt of wing except the inner margin, irregular ante- and postmedial red lines meeting at inner margin, the latter produced to an irregular angle beyond the lower angle of cell, then excurved to its lower angle, a white speck in cell, a dentate submarginal line, the area beyond it brown, the cilia white at tips. Hind wing dark fuscous, the cilia white at tips. Underside of fore wing with the costal and outer area pale, speckled with red, hind wing pale, the costal area speckled with red.

2 Bright orange-vellow, fore wing slightly red-speckled and with slight purplish suffusion below the postmedial line, the cilia

white at tips

Larva With three pairs of abdominal prolegs Grass-green, with dorsal and lateral series of initiate white specks, the prolegs reddish Food-plant Hibiscus

Hab United States, W Indies, S Africa Madagascar, Mauritius, throughout the Oriental region, Australia Exp

38 ınıllım

- SECT II (Thalatta) Fore wing shorter, the outer margin less oblique, palpi with the 3rd joint very long
- 2308 Cosmophila precedens, WW. Cut vn, p 996, C & S no 2252
 Thalatta modesta, Moore, P Z S 1883, p 22, ud Lep Ceyl in,
 pl 153, figs 5, 6, C & S no 2251
 Thalatta a biorbis, Moore, P Z S 1883, p 22, C & S no 2249

Purplish red-brown Fore wing with oblique slightly sinuous antemedial line, an almost straight postmedial line with ochreous outer edge, a sinuous submarginal series of dark or grey specks, a prominent white spot at centre of cell, absent in the form modesta Hind wing dark fuscous

Hab Moulmen, Ailgins, Ceylon Eip 30 millim

2309 Cosmophila fasciosa, Moore, Lep Ath p 154, pl 5, fig 2, C & S no 2250

Differs from precedens in being darker with a purple suffusion

Fore wing with antemedial and medial obscure sinuous diffused dark lines, the postmedial line indistinct rutous and sinuous beyond the cell

Hab Sikhim, Khásis, Tenasserim Erp 30 millim

Genus PSEUDOGONITIS, nov

Type, P brunnea, Moore

Range Calcutta, Moulmein, Singapore, Borneo

Differs from the Lineopalpa group of Cosmophila in the hind wing having vein 5 from the lower end of cell, 3 and 4 stalked

2310 Pseudogonitis brunnea, Moore, Lep Ath p 153, C & S no 2237 Gonitis diversalis, Moore, P Z S 1883, p 21, C & S no 2238, Waterh And, 11, pl 150, fig 2

d Ochreous brown Fore wing with obliquely waved antemedial line, the area beyond it clouded with fuscous, a dark lumile on discoccilulars, a dentate postmedial line, incurved below angle of cell, a submarginal series of dark spots. Hind wing fuscous brown, the clia red-brown

2 Dark chestnut-red Fore wing without fuscous suffusion, an ochreous spot instead of the dark lunule at end of cell Hind wing much darker, a patch of red at centre of cilia

Hab Calcutta, Singapore, Borneo Erp 42 millim.

2311 Pseudogonitis latimargo, W/L Cat am, p 1002, C & S no 2242

2 Differs from Cosmophila fulvida in the 3id joint of palpi being slightly longer, head and thorax dark chocolate. Fore wing

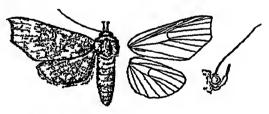


Fig 227 —Pseudogonitis latimargo, 2

dark chocolate, with the postmedial line crenulate and not recuived to lower angle of cell, the area beyond it suffused with grey to the submarginal line, which is represented by a series of grey specks. Underside the outer area of both wings is suffused with grey

Hab Moulmein Exp 44 millim

Genus OSSONOBA

Ossonoba, Will Cat axxv, p 1966 (1866)

Type, O to pida, Wlk Range Sikhim, Burma

Palpi nearly naked, the 2nd joint reaching vertex of head, the 3rd long Antennæ of male bipectinated to the apex, the branches short, thorax and abdomen smoothly scaled, the latter very long and with slight lateral and anal tufts. This harry, mid tarsi with tuft on 2nd joint, hind tarsi with tuft on 1st joint and large tuft on 2nd joint. Fore wing long and narrow, the costa arched towards apex, the outer margin obliquely curved, with the cilia crenulate, the inner margin lobed near base.

2312 Ossonoba torpida, W/L Cat xxxv, p 1966, Butl Ill Het vi, pl 106, fig 8, C & S no 2253

J Purplish red-brown Fore wing with erect antemedial pale line, a minute white speck in cell, traces of a medial angulated line, a pale postmedial line, very highly angled below costa, and with some dark blotches beyond its lower half, an indistinct apical

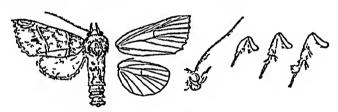


Fig 228 -Ossonoba torpida, & 1

streak, the veins paler towards outer margin. Hind wing paler and redder, the underside pulphish with the inner area pale, a white speck at end of cell, diffused ante- and postmedial lines and waved medial line.

2 More purplish, and without the dark marks beyond post-medial line

Hab Sikhim, E Pegu Eip 40 millim

Genus ARTHISMA

Aithisma, Moore, P Z S 1883, p 20

Type, A scissuralis, Moore Range Burma, Singapore

Palpi upturned and naked, the 2nd joint reaching vertex of head, the 3id long, antennæ minutely ciliated in male, thorax and abdomen smoothly scaled, tibiæ naked. Forewing with the apex acute, the outer margin angled at vein 4, then oblique and cienulate to outer angle. Hind wing with a deep indentation of

the outer margin between veins $1\,b$ and 2, veins 3 and 4 stalked, 5 from lower angle of cell

2313 Arthisma scissuralis, Moore, P Z S 1883, p 20, Waterh Aid, 11, pl 150, fig 3, C & S no 2235

Bright red or brownish ochreous Fore wing with a yellow antemedial spot below the cell, an indistinct speck in the cell and

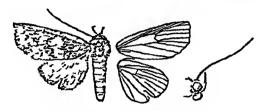


Fig 229 - Arthisma scissuralis, &

one at each angle, an ill-defined postmedial series of yellow lunules incurved below end of cell. Hind wing with traces of a medial yellowish band

Hab Rangoon, Bhámo, Singapore Eip 40 millim

Genus FALANA.

Falana, Moore, Lep Ath p 153 (1882)

Type, F sordula, Moore

Range Sikhim Khasis, Ceylon, Burma

Palpi upturned, the 2nd joint reaching vertex of head, the 3rd long and naked, antennæ bipectinated in male, the branches short, metathorax with slight tufts, abdomen with dorsal tuft on first segment, keeled below, with pairs of flattened scale-like plates, femora with tufts of scales at base, fore tibiæ fringed with hair, mid and hind tibiæ with medial and distal tufts. Fore wing with the apex acute—the outer margin excised below apex, and produced to a rounded lobe at centre and point at vein 2, a tuft of scales forming a boss at base above inner margin, the areole very small, vein 6 from some way below angle of cell—Hind wing with the costa arched at base, veins 3, 4 on a short stalk, 5 from below centre of discocellulars

2314 Falana sordida, Moore, Lep Ath p 154, id Lep Ceyl III, pl 155, fig 4, C & S no 2248

Vinous red-brown, the tuft on hind femora white Fore wing irrorated with black, broad ill-defined subbasal and medial purplish bands, an indistinct antemedial dark line, hyaline specks at angles of cell, an indistinct postmedial waved line excurved round cell, a black subapical spot, the cilia chestnut Hind wing dark fuscous, the cilia chestnut Underside of fore wing with the

costal and apical areas purplish, speckled with white, the postmedial line developed on costal area, the subapical black spot prominent hind wing purplish, irrorated with white, a pale and



Fig 230 -Falana sordida, 3 1

dark line from costa irregularly bent out to beyond cell and curved to inner margin, a whitish line on discocellulars, a submarginal line formed of black blotches

Hab Sikhim, Khásis, Ceylon, Tenasserim Eip 36 millim

Genus OXYGONITIS

Oxygonitis, Hmpsn Ill Het 1x, p 103 (1893)

Type, O sericeata, Hmpsn Runge, Nagas, Cevlon

Range Nagas, Ceylon
Palpi upturned, the 2nd joint reaching vertex of head, the 3rd
minute, antennæ minutely fasciculated in male, thorax and
abdomen smoothly scaled Forewing produced and acute at apex,
the outer margin excised to vein 4, where it is produced to a hook
Hind wing with the anal angle truncate, veins 3, 4 from cell in
male, slightly stalked in female, 5 from below centre of discocellulars

2315 Oxygonitis sericeata, Hmpsn Ill Het ix, p 103, pl 163, fig 1

d Purplish fuscous Fore wing with antemedial oblique line waved below costa, the orbicular round and white, the remiform

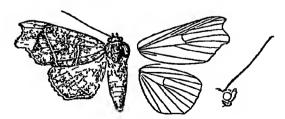


Fig 231 — Oxygonilis sericeata, of

very large and dark, a postmedial brown line curved below costa, then nearly straight to inner margin, with some diffused brown beyond it, a series of submarginal white specks, cilia whitish at

tips Hind wing dark fuscous, with indistinct oblique medial pale Underside grey

Pale yellowish brown, without purple or fuscous suffusion

Hab Nágas, Ceylon Exp 40-46 millim

Genus GONIOCRASPIDUM, nov

Type, G ennomorde, Hmpsn Range N.W Humalayas

Differs from Orygonitis in the 31d point of the palpi being long, the antennæ of male bipectinated. Fore wing with the hook of outer margin at vein 3, the margin crenulate from the hook to outer angle. Hind wing with veins 3, 4 from angle of cell, 5 from above angle.

2316 Goniocraspidum ennomoide, n. sp

Pale ochreous brown Head and thorax chestnut Fore wing slightly irrorated with black, an almost straight ochreous antemedial line, two dark specks at end of cell, a postmedial line angled below costa, then slightly curved to inner margin, traces of a

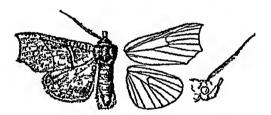


Fig 232 - Goniocraspidum ennomoide, & 1

diffused dark waved submarginal shade, the clia chestnut Hind wing suffused with fuscous, traces of a dark medial line, the clia chestnut Underside with the hind wing and costal and outer areas of fore wing grey, striated with black

Hab Murree, Dharmsála (Harford) Exp 42-46 millim Type in B M

Genus CLETHROPHORA, nov

Type, C distincta, Leech Range Japan, Sikhim

Differs from Oxygonitis in the 3rd joint of palpi being long, the antennæ of male almost simple. Fore wing with the outer margin hooked or angled at vein 4, then crenulate or excised to outer angle, the retinaculum bar-shaped in male, veins 7, 8, 9, 10 stalked. Hind wing with veins 3, 4, 5 from lower angle of cell

- 2317 Clethrophora distincta, Leech, P Z S 1889, p 506, pl 52, fig 7
 - d. Head, thorax, and fore wing bright blush or yellowish

grass-green, abdomen deep red Fore wing with traces of an antemedial curved dark line, a speck at end of cell, a curved pale and dark line from costa just before apex to inner maigin beyond

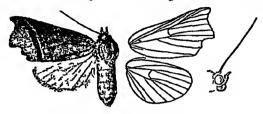


Fig 233 — Clethrophora distincta, &

middle, an indistinct dentate and angled submarginal line Hind wing deep red Underside orange-red, the costa of fore wing and the hind wing irrorated with black

Q with the abdomen and hind wing much yellower Hab Japan, Sikhim $E_{1}p$, 34, 954 millim

Genus CHURIA

Churia, Moore, P Z S 1881, p 359

Type, C nigrosigna, Moore

Range Himalayas, Assam ranges, Calcutta, Western Ghats, Ceylon

Palpi upturned, the 2nd joint reaching vertex of head, the 3rd naked and variable in length. Antennæ minutely ciliated in male. Fore wing with the apex somewhat rounded. Hind wing with vein 5 from lower angle of cell, 3 and 4 on a short stalk, or from cell.

SECT I Outer margin of both wings not excised below apex 2318 Churia arcuata, Wik Cat xii, p 779, C & S no 1803_

Anomis iconica, Will Cat xiii, p 992, C & S no 2239, Hmpsn Ill Het ix, pl 167, fig 8
Briarda cervina, Will Cat xxxv, p 1968, C & S no 3010
Anomis cervina, var instabilis, Butl Ill Het vii, p 72, pl 131, for 3

Anomis figlina, Butl Ill Het vii, p 71, pl 131, fig 2

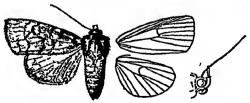


Fig 234 -Churia arcuata, &

Pale red, sometimes purplish Fore wing with two indistinct waved medial lines, bent outwards at median nervure, two waved postmedial oblique lines reaching the inner margin near outer vol ii 2 E

angle, a submarginal sinuous series of dark specks. Hind wing pale and semihyaline

The form cervina is pale yellowish brown, some specimens have

a prominent dark lunule at end of cell of fore wing

Hab Sikhim, Khasis, Khandala, Nilgiris, Ceylon, Rangoon Eap, 3 30-34, 2 42 millim

2319 Churia ocellata, Butl Ill Het vn, p 72, pl 131, fig 4

Pale ochreous brown Fore wing often irrorated with black, a more or less prominent ring-spot at end of cell, traces of antemedial, postmedial, and submarginal waved lines

Hab NW Himalayas, Nagas Exp 34 millim

2320 Churia maculata, Moore, P Z S 1881, p 360, id Lep Ceyl m, pl 150, fig 7, C & S no 1870

Differs from occilata in having a black speck at end of cell of fore wing, or sometimes ring-spots at middle and end of cell, three submarginal black specks, the two lower sometimes absent, in one specimen the black irroration is very strongly developed

Hab Nilgiris, Ceylon Exp 28 millim

*2321 Churia nigrisigna, Moore, P Z S 1881, p 360, pl 37, fig 13, C & S no 1871 Churia ochracea, Moore, P Z S 1881, p 360, C & S no 1872

Differs from maculata in being uniform brownish ochreous, fore wing with a black spot at end of cell

The form ochracea is yellower, without the black spot Hab Calcutta Eap 26 millim

2322 Churia lilacina, n sp

Q Differs from arcvata in being grey, slightly suffused with purplish, the abdomen fuscous, with the anal tuft white Hind wing not semihyaline, but whitish, suffused with fuscous towards outer margin

Hab Sikhim, 6000 feet (Moller) Eip 34 millim Type in

coll Elwes

SECT II Outer margin of each wing slightly excised below apex

2323 Churia discisigna, n sp

d Reddish grey-brown Fore wing with indistinct dentate antemedial and postmedial black lines, the latter excurved round cell, a black speck in cell and white line on discocciliars indistinct sinuous rufous medial and submarginal lines, the former excurved round cell. Abdomen and hind wing dark fuscous Underside with ill-defined curved postmedial line.

Hab Sikhim (Elues) Eap 42 millim Type in coll Elwes

Genus CAPOTENA.

Capotena, Wll. Cat x1, p 714 (1857) Brada, Wll. Cat xv, p 1665 (1858) Phanaca, Wlk Cat xxx111, p 856 (1865)

Type, C apriformis, Wlk

Range Sikhim, Canara, Nilgiris, Ceylon.

Palpi upturned, reaching vertex of head, the 3rd joint minute Antennæ very long and minutely ciliated Fore wing long and narrow, the apex rounded, vein 6 given off from the areole, which is long, 7 from just before the end of it. Hind wing with the apex rounded, veins 3 and 4 stalked

2324 Capotena truncata, Wlh Cat xv, p 1666, Moore, Lep Ceyl n, pl 122, figs 2 a, b (larva), C & S no 1119

Head and thorax chestnut-brown Fore wing chestnut, with the costa pale, a pale outwardly-oblique antemedial line, a dark speck at end of cell, a slightly curved inwardly-oblique postmedial line, traces of a dark waved submarginal line, abdomen and hind wing dark olive-brown

Nilgiri specimens have a greyer and more fuscous tone than the

Ceylon form

Larva with the three thoracic somites swollen, two dorsal tubercles on 11th somite Colour red-brown, the anterior somites olive brown, a pale-centred double lunulate black dorsal line ending

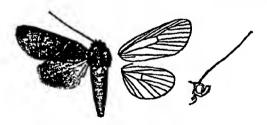


Fig 235 — Capotena truncata, &

as a black band, thoracic somites with black dorsal spots and streaks, pale centred double black lateral paired lines

Cocoon pale red, compact, with a conical projection at end.

Hab Sikhim, Nilgiris, Ceylon. Exp 40 millim.

2325 Capotena apriformis, Will Cat xi, p 715 Phanaca damnipennis, Wlh Cat xxxii, p 857, C & S no 2188

2 Differs from truncata in the head and thorax being black-Fore wing suffused with silvery grey, the costa whitish, the ante- and postmedial lines waved

The type is from Canara, not Java Hab Canara, Ceylon Exp 32 millim. 420 NOCITIDE

Genus PSEUDELYDNA, nov.

Type, *P rufoflava* Wlk *Range* Himalayas, Canara

Palpi smooth and upturned, the 3rd joint minute, antennæ very long and fasciculated in male, abdomen very long in male, in which sex the hind ubiæ and tarsi are clothed with long hair on the outer side, the tibia without spurs and with a very long tuft of hair on the inner side. Fore wing narrow, with the apex rounded, the outer margin oblique: veins 8 and 9 anastomosing to form an areole, hind wing with the anal angle produced to a slight point in male, veins 3 and 4 stalked.

2326 Pseudelydna rufofiava, WW Cat x, p 467, C & S no 1816

d Head and thorax bright yellow, antennæ fulvous, abdomen fuscous, the anal tuft fulvous. Fore wing bright yellow a faint subbasal curved line, an oblique antenedial line, a fulvous ring-spot at end of cell, a curved postmedial and waved sub-

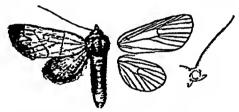


Fig 236 -Pseudelydna rufoflara, &

marginal line, the area beyond the latter rufous Hind wing red, the inner area tinged with fuscous

2 with the vertex of thorax fulvous, the abdomen and hind wing paler

Hab Almorah Exp 36 millim

2327 Pseudelydna diurna, Swinh P Z S 1889, p 412, pl. 43, fig 10

Differs from rufoflava in the head, thorax, and fore wing being pale brick-red, the antemedial line more curved, hind wing with the inner area not fuscous

Hab Sikkim; N. Canara Exp 36 millim

Genus TYMPANISTES

Tympanistes, Moore, P. Z S 1867, p 48

Type, T. pallida, Moore

Range Dharmsála; Sikhim.

Palpi porrect and smoothly scaled, the 3rd joint long, antennæ of male almost simple. Fore wing produced and acute at apex, neuration normal, hind wing with veins 3 and 4 stalked, 5 from just above lower angle of cell.

Male with the retinaculum bar-shaped, the basal segment of the abdomen with paired sound-producing organs below, consisting of hollow cavities inside each of which a spatulate process strikes on a projecting ridge, a fan of long scales projecting backwards from the surrounding membrane, the sound produced being compared to that of a policeman's rattle, the claspers when exposed surrounded by dense masses of floss-silk

2328 Tympanistes rubidorsalis, Moore, P Z S 1888, p 409, Butl Ill Het vii, p 52, pl 126, fig 5

d Head, thorax, and fore wing brownish ochreous, the last with a dark-ringed white spot at end of cell, faint traces of an irregularly waved postmedial line, a series of marginal specks

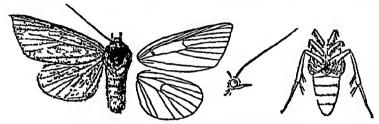


Fig 237 — Tympanistes rubidorsalis, &

Hind wing semihyaline white, the inner area suffused with pinkish red Abdomen bright red above

Hab Dharmsála. Exp 52 millim

2329 Tympanistes pallidus, Moore, P Z S 1867, p 49, pl 6, fig 1, C & S no 1716

d Differs from rubidorsalis in the head, thorax, and fore wing being of a yellowish tinge, the last with no spot at end of cell, a submarginal as well as the postmedial waved line traceable, abdomen not so bright red, bind wing without red on inner area Hab Sikhim Eap 50 millim

2330 Tympanistes testaceus, *Moore*, *P Z S* 1867, p 49, pl 6, fig 2, *C & S* no 1717

Q Differs from pallida in the head, base, and costs of fore wing being green, the ground-colour of fore wing redder, a black spot at end of cell Hind wing reddish yellow

Hab Sikhim Exp 44 millim

Genus CAREA

Carea, Wil. Cat x, p 474 (1856)
Dabarita, Wil. Cat x, p 478
Ranaja, Moore, Lep 4th p 121 (1882)

Type C varipes, Wlk

Range Throughout India, Burma, and Ceylon, Andamans,

Malacca, Borneo, Java

Palpi upturned, reaching vertex of head Antennæ ciliated in male Mid tibia with a terminal pair of spurs, hind tibia in male very much shortened, with a minute terminal pair of spurs, and with a tuft of long scales extending from its extremity along the inner side of the first tarsal joint, which is much elongated and swollen. Fore wing with the apex quadrate, vein 6 from angle of cell, 8 and 9 anastomosing to form the areole, which is long Hind wing with the apex rounded, veins 3 and 4 from angle of cell.

SECT I (Dabarita) Fore wing with the outer margin angled at vein 4

2331 Carea subtilis, Wlk Cat x, p 479, Moore, Lep Ceyl 11, pl 123, figs 3, 3 a, Forsayeth, Trans Ent Soc 1884, pl 14, figs 4, 4 b (larva), C & S no 1118

Head, thorax, and fore wing varying from pinkish flesh colour to red-brown. Fore wing with an outwardly oblique line from the costa before the middle to inner margin beyond the middle, a curved double line from costa before apex to outer angle. Hind wing white, with some pink on outer margin below the apex. Abdomen whitish, the vertex more or less suffused with fuscous and red-brown.

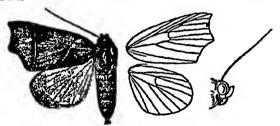


Fig 238 — Carea subtilis, of

Ganjam specimens are very pale, with the markings of fore

wing almost obsolete

Larva Thoracic somites very much swollen and green, the other somites pale red-brown, with white, reddish, and brown lateral lines, a dorsal tubercle on terminal somite

Hab Throughout India and Ceylon, Andamans, Java. Exp,

♂ 36, ♀ 40 millim.

2332 Carea chlorostigma, Hmpsn Ill Het 1x, p. 101, pl. 159, fig 12

d Head, base of collar, femora, and tibize variegated orange and dark ferruginous. Thorax and fore wing greyish red-brown, the latter with very indistinct waved antemedial, postmedial, and submarginal lines, a round dark green spot in middle of cell, an elongate spot below it, and a lumilate spot on discocellulars, a

CAREA. 423

purplish blotch on costa before the apex, outer margin suffused with chestnut below the apex. Abdomen and hind wing pale reddish brown

The Sikhim specimen has the green spots large Hab Sikhim, Ceylon Evp 34 millim

SECT II (Carea) Fore wing with the outer margin regularly curved

2333 Carea varipes, Wh. Cat x, p 475, Moore, Lep Ceyl n, pl 123, figs 1, 1 a, C & S no 1121
Chora curvifera, Wlk. Journ Linn Soc vi, p 188
Dabarita rhodophila, Wlk. Cat xxxii, p 718

Head, thorax, and fore wing pale or dark red-brown, or suffused with olive-green. Fore wing with an indistinct curved oblique antemedial line, two dark specks in the end of cell, a curved double line from costa to outer angle, traces of a dark or greyish submarginal line. Hind wing reddish orange, the inner margin whitish or fuscous. Abdomen red-brown or fuscous

Larva with the thoracic somites very much swollen, an elongated conical tubercle on 11th somite. Colour purplish or greenish olive-brown, a purplish white band from 3rd to 11th somite, head small and red

Cocoon with a conical projection from the end, compact, and

Hab Assam , Ceylon , Malacca , Borneo , Java Exp , σ 43, Ω 48 millim

2334 Carea nitida, n sp

Q Head and thorax dark brown, abdomen paler, with a pink tinge at sides. Fore wing dark red-brown suffused with purplish grey, except the postmedial area, oblique, slightly curved, ante- and postmedial dark lines, an indistinct waved submarginal line, Hind wing bright red, the inner area suffused with fuscous Underside of fore wing red, hind wing ochreous, irrorated with red

Hab Sikhim (Elwes) Eip 40 millim Type in coll Elwes

2335 Carea purpurea, Hmpsn Ill Het vin, 59, pl 141, figs 4, 9

Fore wing with the apex more acute Head, thorax, and fore wing dark purplish red-brown, the last with a line from the costa before the middle to inner margin beyond the middle, a dark speck at end of cell, a waved slightly oblique postmedial line, a series of submarginal specks Hind wing pale yellow, suffused with reddish orange towards outer margin Abdomen reddish fuscous

Hab Sikhim, Nilgiris Exp, ♂ 32, ♀ 40 millim

2336. Carea obsolescens, Moore, Trans Ent Soc 1884, p 356, C & S. no 1120

d Differs from purpurea in the head, thorax, and fore wing being pale reddish chestnut, the last without the dark speck at end of cell, cilia tipped with white Abdomen and hind wing otherous, the latter with a reddish tinge towards outer margin

The Bhutan specimen has an indistinct fascia from apex of

fore wing

Hab Bhutan, Mahableshwar, Nilgiris, Ceylon Exp 43 millim

- 2337 Carea fasciata, Moore, Lep Ath p 121, pl 1v, fig 18, C & S
- d Head and collar chestnut, thorax and abdomen reddish fuscous. Fore wing red-brown, suffused with purplish grey, the basal area and a broad postmedial band deep green, oblique ante-and postmedial and dentate submarginal green lines. Hind wing red, the inner area fuscous

Hab Sikhim Erp 40 millim

2338 Carea costiplaga, Swinh A M N H (6) All, p 262

Q Pale reddish grey Fore wing with a small red-brown antemedial spot on the costa, a large subtriangular patch before the apex, indistinct ante- and postmedial oblique lines, a black speck at end of cell, culia red-brown Hind wing reddish orange Underside reddish orange, with a whitish patch on costa of fore wing before apex, the inner area of hind wing pale

Hab Sibsagar Exp 36 millim

2339 Carea fuscomarginata, n sp

of Bright chestnut-red Fore wing with a dark speck at end of cell, antemedial, postmedial, and submarginal indistinct waved lines Hind wing red, the inner area fuscous

Hab Mergui (Doherty) Exp 30 millim Type in coll Druce

2340 Carea albopurpurea, Swinh MS

Head and collar ferruginous, thosax whitish, abdomen whitish, suffused with fuscous Fore wing white, suffused with purple except the apical area, an obliquely waved rutous antemedial line and similar double postmedial line filled in with white, and with a large rutous patch inside it, a submarginal series of rutous specks, cilia rutous from apex to vein 4. Hind wing white, the inner area fuscous

Hab Sikhim (Knyvett), Khasis (Hamilton) Eap 32 millim

Type in B M

Genus PTYONOTA, nov

Type, P formosa, Hmpsn

Range Tenasserim
Palpi reaching vertex of head, abdomen with a dorsal fan of
scales at base Fore wing with the apex produced and acute, the
outer margin excised below it Veins 8 and 9 anastomosing to

form the areole, which is long Hind wing with veins 3 and 4 stalked

2341 Ptyonota formosa, n sp

Q Head rufous collar black-brown, thorax grey, an ochreous and rufous patch on metathorax, abdomen reddish brown, with the basal tuft pure white Fore wing grey, with a rufous subbasal band, a sinuous antemedial rufous and grey line, with a large red patch inside it from median nervure to inner margin, a



Fig 239 — Ptyonota formosa, Q

black speck in cell, and lunule on orange spot at end of it, the postmedial area red, with an irregularly waved postmedial dark line on it, and similar submarginal line. Hind wing pale, suffused with red

Hab Tenasserim Valley (Doherty) Erp 34 millim Type in coll Druce

Genus TORTRICIFORMA, nov

Type, T viridipuncta, Hmpsn

Range Sikhim

Proboscis fully developed, palpi upturned and smoothly scaled, the 2nd joint reaching vertex of head, the 3rd long. Fore wing with the costa arched at base and excised before the apex, the outer margin excised from the apex to vein 6, where it is produced to an angle and again excurved between veins 4 and 2, veins 6 and 7 from cell, 8, 9, 10 stalked. Hind wing with veins 3 and 4 stalked, 5 from near lower angle of cell, 6 and 7 from upper angle, the costa slightly excised.

2342 Tortricifoima viridipuncta, n sp



Fig 240 Tortriciforma viridipuncta, Q

Hab Sikhim (Knyvett)

Pale reddish Fore wing slightly irrorated with black scales, a large bright green spot on costa near base, and a comma-shaped spot from costa to upper angle of cell, a black speck on discocellulars. Hind wing orange-red, underside with ferruginous spot at end of cell, and two waved lines beyond it Exp 28 millim Type in coll Knyvett

Genus TINOSOMA, nov

Type, T hyperythrum, Hmpsn

Range Nágas, Burma, Andamans, Borneo

Palpi upturned, reaching above vertex of head. Antennæ verv Abdomen slender and very long Fore wing long and rather narrow, the costa arched, the inner margin curved, veins, 6 and 7 from angle of cell, 8, 9, 10 stalked, hind wing with veins 3 and 4 from cell

SECT I Fore wing with the outer margin hardly excised between the apex and vein 3. Antennæ of male bipectinate.

2343 Tinosoma hyperythrum, n sp

G. Head, thorax, abdomen, and fore wing pale red-brown Fore wing with traces of waved ante- and postmedial lines, a dark dot in end of cell, indistinct submarginal and marginal

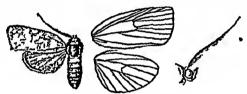


Fig 241 - Tenosoma hyperythrum, &

series of dark dots Hind wing and underside bright red, the latter with the apex of fore wing pale

Hab Naga Hills, 2000 feet (Doherty), Andamans, Borneo Exp. 28 millim Type in coll Elwes

SECT. II Fore wing with the outer margin highly excised between the apex and vein 3 Antennæ of male simple

2344 Tinosoma mirabile, Swinh Trans Ent Soc 1890, p 237

Head and thorax pale reddish, abdomen fuscous wing pale reddish, slightly irrorated with brown, waved ante- and postmedial lines, the latter excurved beyond the cell, a series of black submarginal specks, some brown suffusion at outer angle Hind wing pale brownish red, underside pale, with indistinct cell-spot and two black subapical spots

Hab Rangoon Evp 20 millim

- SECT III Fore wing with the outer margin slightly excised between the apex and vein 3, from thence to outer angle oblique and crenulate Antennæ of male simple
- 2345 Tinosoma bilinea, Swinh Trans Ent Soc 1890, p 237
 - d Pale reddish brown Fore wing suffused with purplish and

slightly irrorated with black scales, a curved subbasal line, slightly sinuous antemedial, medial, and postmedial lines, the ante- and postmedial with pale inner edge, a black spot on discocellulars and submarginal series of black specks, a large chestnut medial patch on the costa, and smaller patch on apical part of outer margin. Hind wing orange-red, with a submarginal series of black specks. Underside of fore wing with the disk orange-red, hind wing pale, the costal area irrorated with red-brown, a cell-spot, the submarginal black specks prominent.

Hab Rangoon, E Pegu, Tenasserim Evp 26 millim

Genus GELASTOCERA

Gelastoceia, Butl Ann N H (4) xx, p 476 (1877)

Type, G exusta, Butl, irom Japan

Range Japan, Sikhim

Palpi upturned, reaching above vertex of head, the 3id joint short. Antennæ bipectinated for two-thirds length in male. Fore wing with the apex rather produced and acute. Vein 8 anastomosing with 9 and 10 to form the areole. Hind wing with veins 3 and 4 from cell.

2346 Gelastocera castanea, Moore, Lep Ath p 71, pl 3, fig 9, C & S no 1211

Head, thorax, and fore wing red-brown, the last with very indistinct dusky ante- and postmedial bands, an indistinct fuscous reniform spot, indistinct submarginal and marginal series of dark



Fig 242 — Gelastocera castanea, &

specks Hind wing white, the apical portion of outer margin with a slight pink tinge Abdomen fuscous white Hab Sikhim Eip, & 32, \$\times\$ 40 millim

Genus BEARA

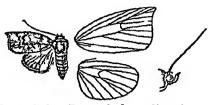
Beara, Will Cat xxxv, p 1703 (1866)

Type, B dichromella, Wlk

Range Bombay, Nilgiris, Ceylon, Tenasserim, Java

Palpi upturned, reaching above vertex of head, the 3rd joint lather long. Antennæ minutely ciliated in male. Fore wing with the costa arched, the apex acute, the outer margin excurved, vein 8 anastomosing with 9 and 10 to form the arcole, which is very minute. Hind wing with veins 3 and 4 stalked.

2347 Beara dichromella, Will Cat axav, p 1703, Moore, Lep Ceyl n, pl 123, figs 2, 2 a, C & S no 1212



[Fig 243 - Beara dichromella, d

of Head, thorax, and fore wing red-blown, irrorated with fuscous scales, traces of ante-medial, postmedial, and sub-marginal waved lines, a dark speck in cell and spot at end of it, a dark marginal line. Abdomen and hind wing whitish, the latter suffused with reddish at apex.

Hab Bombay, Nilgiris, Ceylon, Tenasserim Erp 24 millim

Subfamily QUADRIFINÆ

Palpi with the 2nd joint more or less thickened, the scaling rather bairy, the tibiæ very frequently spined, and the tarsal joints short. Fore wing with veins 8 and 9 almost always anastomosing to form an areole. Hind wing with vein 5 fully developed and from or from near lower angle of cell.

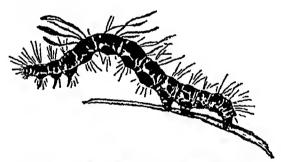


Fig 244 - Larva of Tinolius eburneigutta }

Larvæ. Semi-loopers, with either the four pairs of abdominal piolegs fully developed or with the first or first two pairs partially or totally aborted

Key to the Genera

b^2 Mid and hind tibit spined c^2 Tibit not spined	15	Nастірао, р 458
a Fore wing with the apex not falcate		
a' Fore wing with the cilia cienulate	14	Spiredonia, p 457
b4 Fore wing with the cilia non-crenu-	01	C
late b^3 Fore wing with the apex more or	ΟI	CALISIA, p 579
less falcate		
at Hind wing with the outer margin		
more or less angled	16	Hylodes, p 462
b' Hind wing with the outer margin		T
rounded c' Hing wing with the outer margin	ออ	Івснұлл, р 537
nearly straight	56	PLATIJA, p 539
b' Hind wing with the cell of normal	00	2 222 10A, p 000
length		
a ² Abdomen with large anal tuft, the		
wings produced at apex, hind wing		
with the outer maigin straight, the		_
anal angle lobcd	57	IONTHA, p 541
b" Hind wing ample, the apex produced,		_
a large tuft of hair on inner margin,		
hind legs with immensely developed	~~	
tufts of hair	БB	Скітноте, р 541
c ² Shape sphingiform, the abdomen long		F : 400
Fore wing long and produced at	20	[p 490
apex d^2 Fore wing with the costa highly arched.	32	Sphingovorpha,
d ² Fore wing with the costa highly arched, the apex produced, the outer and inner		
margins forming a continuous curve	72	PHILLODES, p 557
e2 Fore wing with the apex produced	. –	тиговория, р оз.
upwards to a slight lobe and cut off		
square to centre of outer margin,		
which is much angled	67	LYCIMNA, p 550
f^2 Shape and appearance normal		
a ³ Abdomen uniformly clothed with		
long woolly hair, males with a	-00	
chitinous rasp on dorsum	28	ARCTE, p 485
b Abdomen with prominent dorsal tufts		
a ⁴ Fore wing with a tooth of scales at outer angle		
as Thorax with a large spreading tuit		
on vertex		
a ⁶ Fore wing without raised tufts of		
scales	77	Plusia, p 567
be Fore wing with raised tufts of	~ ^	
scales	78	ABROSTOLA, p 577
b° Thorax without a large spreading tuft on vertex		
a ⁷ Fore wing with the cilia crenu-		
late C	8	ERYGIA, p 444
b' Fore wing with the ciha non-		
crenulaté		
a ⁸ Fore wing with the apex rect- angular	27	Monana - 405
$b^{\rm g}$ Fore wing with the apex	21	Mosara, p 485
rounded	7	BATRACHARTA, p 443
	-	

b' Fore wing with no tooth of scales
at outer angle a. Thorax quadrately scaled, the metathorax tufted 9 Sypna, p 446
b' Thorax not quadrately scaled
as Mid tibes spined 19 Homortea, p 474 bs Mid tibes not spined
a ⁷ Palpi clothed with hair, the 2nd
joint not flattened as Thorax with a high sharp crest 31 Coarica, p 489
o Thorax without a high crest
a ⁹ Metathorax tufted a ¹⁰ Palpi upturned 30 Mithila, p 488
a ¹⁰ Palpi upturned 30 Mithila, p 488 b ¹⁰ Palpi obliquely porrect 20 Panilla, p 476 b ⁹ Metathorax not tufted
a ¹⁰ Fore wing with the costa
arched towards apex a^{11} Fore wing with vein 10
given off from the areole 18 Polydesma, p 465
b ¹¹ Fore wing with vein 10 given off after the areole 80 Tinolius, p 578
b ¹⁰ Fore wing with the costa
nearly straight, abdomen with strong ridges and tufts
of hair . 26 CATFPHIA, p 481 b ⁷ Palpi smoothly scaled, the 2nd
joint wide and flattened, the
3rd long 59 HARMATFLIA, p 542 c ³ Abdomen without prominent dorsal
tufts
a^4 Mid tibiæ without spines a^5 Fore wing with the outer margin
not angled
a Fore wing with the costa mode- rately arched
a ⁷ Mid and hind tibim with tufts of spinous hair 21 MFLIPOTIS, p 477
b7 Mid and hind tibiæ without tufts
of spinous hair a ⁸ Palpi with the 3rd joint up-
turned, no frontal tuit
a ⁹ Palpi with the 2nd joint clothed with hair
a ¹⁰ Fore wing broad a ¹¹ The scaling hairy and rough 4 Trisula, p 437
δ ¹¹ The scaling smooth
a ¹² Fore wing with the apex acute and slightly pro-
duced 45 Baniana, p 513
b12. Fore wing with the apex rectangular
a ¹³ Hind wing with vein 5
of cell 47 PLECOPTERA, P 110
from lower angle of cell 46 Borsippa, p 516
b10 Fore wing narrow

 a^{11} Fore wing with the apex 23 Lyncestis, p 479 rectangular b11 Fore wing with the apex 6 Phobica, p 443 rounded b' Palpi with the 2nd joint amouthly scaled a10 Palpi with the 2nd joint not reaching above vertex of head a11 Abdomen with strong ridges of coarse hair 29 CYCLODES, p 487. Abdomen without strong ridges of coarse hair Fore wing increasing in width to outer margin, the abdomen rounded a13 Palpi with the 2nd joint reaching vertex of head, the 3rd long a14 Fore wing with the apex 35 Chrisopfra, d 493 rounded b14 Fore wing with the apex rectangular 51 FODINA, p 529 b13 Palpi with the 2nd joint not reaching vertex of head, the 3rd short a14 Fore wing with the inner margin not lobed at base and without tuft of hair at outer 34 Brana, p 492 angle b14 Fore wing with the inner margin lobed at base and with tuft of hair at outer angle 75 PSFUDOCALPE, p 566 b12 Fore wing of nearly even width throughout, the 38 ISOURA, p 506 abdomen flattened b10 Palpi with the 2nd joint reaching above vertex of head, the 3rd long a11 Fore wing with the apex 44 Simpis, p 512 falcate b11 Fore wing with the apex 69 OMMATOPHORA, rounded [p 551 b⁸ Palpi with the 3rd joint upturned, a short sharp frontal 43 Delgamma, p 512 tuft c⁸ Palpi with the 3rd joint obliquely porrect a Frons with a short sharp tuft, fore wing with the cilia non-crenulate Fore wing with the apex 54 THERMESIA, p 533 slightly produced Fore wing with the apex not produced

ð⁵

all Fore wing broad, hind		
wing with the anal angle	40	
truncate	40	Anereuthina, p 509
b11 Fore wing narrower, hind		· -
wing with the anal angle		
rounded	42	Dordura, p 511
b Frons 1 ounded, the cilia crenu-		
late	41	Serrodes, p 510
d's Palpi with the 2nd joint tri-		., F
angularly scaled, the third very		
minute	48	ACANTHOLIPES,
es Palpi porrect and triangularly		[p 520
scaled, a shortsharp frontal tuit		LP 020
a? Fore wing with the inner mar-		
a rote wing with the inner that		
gin not lobed near base nor	71	TT
hooked at outer angle	11	Hapocala, p 452
bo Fore wing with the inner		
margin lobed near base and		
booked at outer angle		
a ¹⁰ Fore wing with veins 8 and		
9 anastomosing to form an		
areole	74	CALPE, p 563
blo Fore wing with yeins 7, 8,		
9, 10 stalked	76	Arsacia, p 567
be Fore wing with the costa straight,		
the outer margin obliquely		
rounded margin obliquely		
a? Fore wing with the apex rect-	63	Dans
	03	Вематна, р 546
b' Fore wing with the apex acute,		. 470
hind tibiæ of male distorted	22	GNAMPTOGYIA, p 478
c' Fore wing with the costa very		
highly arched towards apex,		
which is more or less falcate		
Fore wing with no lobe or tuft		
of hair on inner margin		
a Palpi with the 3rd joint of		
moderate length, fore wing		
with the cilia crenulate		
a9 Fore wing nairow and pro-		
duced at apex	64	Oxiodes, p 546
b' Fore wing broad and short	71	MINIODES, p 556
b" Palpi with the 3rd joint minute,	• –	, <u>F</u>
the cilia non-crenulate		
a ⁰ Palpi upturned, no frontal tuft	85	Hamodes, p 547
b° Palpi with the 3rd toint por-	UU	TIAMODES, p 32.
rect, a short sharp frontal		
tuft, forewing with the apex	00	PLEURONA, p 549
	UU	TPERIOROGEN P. OZO
b' Fore wing with the inner margin		
lobed near base and with a fuft		O
	73	OPHIDERES, p 558
5 Fore wing with the outer margin		
more or less angled		
as Fore wing with the cilia non-		
crenulate		

a ⁷ Fore wing with the apex not produced, the outer margin of		
both wings slightly angled		
as Fore wing with the inner mar-		
gin excised and with tufts of		_
hair at centre and outer angle	79	PLUSIODONTA, p 577
b ⁸ Fore wing with the inner mar-		
gm not excised and without		
tufts of hair	c n	Entenance = 540
 a⁹ Palpi with the 3rd joint short b⁹ Palpi with the 3rd joint longer 	ผา	Orampan n 511
Fore wing with the apex pro-	O1	OLKIERNA, P 044
duced, the outer margin of both		
wings highly angled	62	AMPHIGONIA, p 545
b Fore wing with the cilia highly		
cienulate	33	LACERA, p 491
b4 Mid tibiæ spined		-
a' Palpi with the 3rd joint upturned,		
no frontal tuft		
as Palpi with the 2nd joint hardly		
reaching vertex of head and		
clothed with hair a Fore tibize with a pair of crooked		
terminal spines	24	GNAMPTONIX, p 480
b Fore tibize without clooked	~-	Charles on the party of
terminal spines		
a ⁸ Hind tibite spined		
a? The cilia non-crenulate		
are Fore wing with the apex		
and outer margin somewhat	~~	
lounded	25	Pseudophia, p 480
δ ¹⁰ Fore wing with the apex		
somewhat produced, the	EΩ	Try (0) 00 FS 7 527
outer margin oblique b³ The cilia crenulate	าก	TRIGONODFS, p 527 ERCHEIA, p 451
b ^s Hind tibiæ not spined	10	Diction, p 401
a ⁹ The cula crenulate	5	CATOCALA, p 439
b ⁹ The cilia non-crenulate		
a ¹⁰ Palpi with the 2nd joint		
fringed with long hair	68	Houcea, p 551
b10 Palpi with the 2nd joint		
clothed with short hair		T3
all Forewingsomewhatfalcate	อช	ENTOWOGRANMA,
b ¹¹ Fore wing not falcate		[p 532
a ¹² Fore wing with the outer margin somewhat ob-		
lique	49	Remigia, p 525
b^{12} Fore wing with the outer		2022-10-12, P 0-0
niargin more erect	52	GRAMWODES, p 531
b^{ϵ} Palpi with the 2nd joint reaching		· -
just above vertex of head and		
smoothly scaled		
a ⁷ Fore wing with the costa evenly		
arched a^* Hind wing with the anal angle		
truncate, the tibix hairy	36	OPHIUSA, p 493
		<u>.</u> -
AOT II		2 F

b3 Hind wing with the anal angle rounded, the tibiæ usually naked

70 Spirama, p 552

b Fore wing narrower the costa arched near base, then straight 37 LAGOPTERA, p 505 b' Palpi with the 3rd joint obliquely

porrect
a Frons with a short sharp tuft, fore wing with the apex not falcate

39 HYPETRA, p 507

b' Frons rounded, fore wing with the apex falcate, cilia of both wings highly crenulate, hind wing with the outer margin produced to a point at vein 4 12 PTEROCICLOPHORA.

[p 454

Genus CETOLA.

Cetola, W7k Cat v, p 1015 (1855)

Type, C dentata, Wlk Range Nepal Indore

Eyes naked and without lashes, proboscis thin and weak Palpi hairy, upturned, and reaching just above vertex of head Antennæ serrated in both sexes, thorax with a large spreading tuft of scales, abdomen with dorsal tufts on proximal segments, legs hairy, Fore wing with the cilia crenulate and strongly without spines toothed towards outer angle Hind wing with vein 5 given off from below centre of discocellulars

2348 Cetola dentata, WTA Cat v, p 1016, C & S no 1166

Head, thorax, and abdomen red-brown, collar and thoracic tuft grey-brown Fore wing reddish buff, with a broad grey-brown fascia on costa, narrowing to apex, the orbicular indistinct, large, and rounded with dark outline, remiform with the upper part indistinct, the lower white and extending downwards almost to



Fig 245 - Cetola dentata, of

vein 2, some red-brown streaks towards apex, at middle of outer margin, and on inner margin Hind wing white in male, with the anal angle red-brown, in female dark fuscous, with red-brown marginal band Hab Nepal, Mhow Eap, d 35 Q 46 millim

435

TACM

Genus MOMA

Moma, Hubn Verz p 203 (1818)

Type, M ludifica, Linn, from Europe

Range Europe, India, Ceylon

Eyes hany, proboscis fully developed, palpi obliquely upturned and clothed with long hair below, the 3rd joint short. Thorax and abdomen without tufts, the latter clothed with long hair at sides

Laiva forms a cocoon in a rolled-up leaf

SECT I Antennæ of male simple

2349 Moma champa, Moore, P Z S 1879, p 403, pl 33, fig 2, C & S no 1213

d Head and thorax white, the 3rd joint of palpi, a spot between antennæ, and the antennæ, except basal part of shaft, black, thorax banded and spotted with black, abdomen yellow,

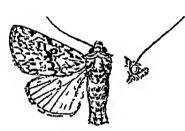


Fig 246 Moma champa, & 1

the extremity white, a dorsal series of black spots and ventral series of bands. Fore wing white, with some black marks near base, about 7 prominent but ill-defined waved and dentate black lines, a ringspot at end of cell. Hind wing white, the inner area clothed with yellow hair, the veins black, the apex slightly suffused with fuscous, cilia of both wings chequered black and white

 \mathcal{P} with the outer area of hind wing suffused with black Hab NW Himalayas, Punjab, Nilgiris, Ceylon Eip, 3 44, \mathcal{P} 56 millim

SECT II Antennæ of male minutely fasciculated

2350 Moma entoxantha, n sp

Head and thorax fuscous black and whitish, abdomen orange, with dark dorsal tufts. Fore wing fuscous brown, irrorated with white and suffused with olive-green and purple shades, double ante- and postmedial lines, the last whitish at costa and inner margin, an orbicular black ring-spot and lumulate reniform, indistinct irregularly sinuous medial and submarginal lines, a whitish patch at outer angle. Hind wing black, the basal and inner areas orange, cilia chequered black and white. Underside of fore wing black, with the basal area orange, a short whitish postmedial band from costa and series of white streaks on the veins to the patch at outer angle, hind wing with the basal and inner areas orange, the apical and outer areas blue-black, with a

436 NOCTUIDE

medial white band from costa to lower angle of cell, a postmedial band to vein 2 and some diffused white on outer margin

Hab Simla, Sikhim (Moller) Eap 42 millim Type in coll.

Elwes

Genus TRISULOIDES

Trisuloides, Butl A M N H (5) vii, p 36 (1881) Tambana Moore Lep Atl p 155 (1882)

Type, T sericea, Butl

Range Himalayas, Assam hills, Sylhet

Eyes hairy, palpi reaching vertex of head and clothed with hair, thorix hairy, abdomen with dorsal tufts, tibiæ moderately Fore wing with the apex somewhat rounded Hind wing with vein 5 from below centre of discocellulars

SECT I (Tambana) Antennæ fasciculated in male

2351 Trisuloides infausta, Will Cat ix, p 237, C & S no 2075

Dark cupreous-fuscous suffused with grey Fore wing with indistinct short subbasal and double waved antemedial line, with a slight dentition below the cell, the orbicular small and sometimes whitish, the remiform indistinct, an indistinct double waved postmedial line excurved beyond cell, an irregular submarginal line, a marginal series of black specks Hind wing pale cupreous more or less suffused with fuscous towards outer margin

The race from the NW Himalayas is much blacker and less

cupreous

Hab NW Himalayas, Sikhim, Sylhet, Shillong Exp of 46, ♀ 50 millim

2352 Trisuloides variegata, Moore, Lep Atl p 155 C & S no 2200

Head, thorax, and abdomen golden-fulvous irrorated with brown Fore wing cupreous-brown, irrorated with white, indistinct subbasal and double ante- and postmedial waved lines, the latter excurved beyond cell, an indistinct irregular dark submarginal line, with some white streaks beyond it golden-fulvous, the outer area suffused with fuscous

Hab Sikhim Exp 60 millim

SECT II (Trisvloides) Male with the antennæ bipectinated, the branches short

2353. Trisuloides sericea, Butl A. M N H (5) vn p 36 C \S S Trisulo.des catocalina, Moore, P Z S 1883, p 17 C & S no 1031

Fascous brown, irrorated and suffused with grey, tegulæ with two black bars Fore wing with antemedial waved black line,

a ring-spot in end of cell, a sinuous medial diffused line, an indistinct waved postmedial and a sinuous submarginal line, the space between them irrorated with grey scales. Hind wing fuscous, with

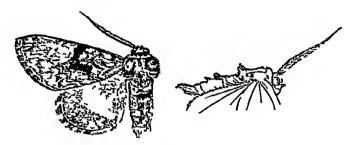


Fig 247 — Trisuloides sericea, & +

broad medial yellow band not reaching costs or inner margin, a slight marginal grey line and patch at anal angle Underside of fore wing with yellow in cell and beyond the medial dark band Hab NW Himalayas, Sikhim, Shillong Erp 64 millim

2354 Trisuloides luteifascia, Swinh MS

Q Blackish red-brown, irrorated with grey, abdomen fulrous at sides. Fore wing with indistinct curved postmedial pale line. Hind wing with broad medial orange band ending near anal angle, a marginal series of pale lunules. Underside of fore wing with the disk orange, except a dark patch at end of cell. Hind wing with an orange patch near anal angle.

Hab Khásis Eup 75 millim Type in B M

2355 Trisuloides cærulea, Butl Ill Het vii, p 35, pl 128, fig 3

Differs from sericea in the thorax being more rufous, the abdomen darker. Fore wing with whitish patch on disk extending to costa and outer angle. Hind wing uniform blue-black, the cilia whitish in parts. Underside of fore wing with the yellow postmedial band extending to outer angle, hind wing irrorated with white

Hab NW Himalayas Enp 70 millim

Genus TRISULA

Trisula, Moore, Lep E I Co p 420 (1858)

Type, T variegata, Moore

Range Throughout India and Ceylon

Palpi reaching vertex of head, the 2nd joint clothed with long hair, antennæ fasciculated in male, metathorax with a slight tuft, abdomen with thick woolly hair on dorsum of proximal segments,

tibiæ hairy and without spines Fore wing with the costa somewhat arched towards apex

SECT I Palpi with the 3rd joint minute

2356 Trisula variegata, Moore, Lep Ε Ι Co p 420, pl 12 α, fig 1, & pl 22, figs 1, 1 α, 1 b (larva), C & S no 1331

Palpi and frons rufous, vertex of head and collar pale, thorax rufous, the metathoracic tuft black, abdomen pale, with the long hair on proximal segments rufous. Fore wing pale, variegated with rufous and fuscous, indistinct double waved subbasal and antemedial lines, the reniform indistinct, a double dentate postmedial line, highly excurved beyond cell, then incurved below it and with some rufous patches beyond it, an oblique black band across apical area, a marginal series of dark specks. Hind wing

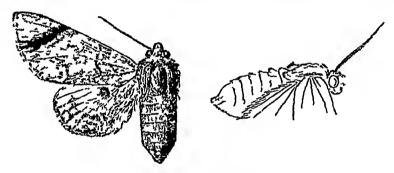


Fig 248 - Trisula variegala, of

yellowish white, with a large blackish spot at end of cell, a curved postmedial band with traces of a line inside it towards inner margin, the area beyond it more or less suffused with fusious, the cilia rufous

Larva clothed with rather sparse tufts of long hair Head blackish, the frons pale, thoracic segments pale, the others redbrown, with numerous blue warts Food-plant, Ficus religiosa It forms a cocoon covered with extraneous matter, stones, excrement, etc

Hab Throughout India and Ceylon Evp., 3 78, 2 80-104 millim

SECT II Palpi slender, with the 3rd joint longer

2357 Tisula 2 boarmoides, Will Cat anxiii, p 923, C & S no 2360

Q Grey-brown Fore wing with double antemedial and postmedial sinuous black lines, the latter joined by an oblique streak from the apex, traces of waved subbasal, medial, and submarginal lines, a marginal series of dark striæ Hind wing with the basal half pale, the outer fuscous brown, with marginal series of dark striæ

Type in bad condition.

Hab "N India." Eip 30 millim

Genus CATOCALA

Catocala, Schrank, Fauna Boica, 11, 2, p 158 (1802)

Type, C fraum, Linn, from Europe

Range Nearctic and Palæarctic regions, Himalayas; Nilgiris; Ceylon.

Palpi reaching just above vertex of head, the 2nd joint thickly scaled, antennæ of male fasciculated; thorax smoothly scaled, abdomen with dorsal ridges of coarse hair on proximal segments, which are sometimes developed into tufts, fore tibiæ more or less hairy, hind tibiæ spined. Fore wing with the apex nearly rectangular, the cilia crenulate. Hind wing with the cilia crenulate, vein 5 from below centre of discocellulars.

Larvæ with four pairs of abdominal prolegs.

SECT I Hind wing yellow.

A Mid tibiæ of male with a tuft of long hair from the base.

2358 Catocala rama, Moore, Lep Ceyl 111, p 128, pl 160, fig 6, C & S no 2282 Audea macula, Hmpsn Ill Het v111, p 84, pl 146, fig 21

Head and collar reddish, thorax and abdomen grey Fore wing grey, irrorated with black, a short subbasal line, an oblique antemedial waved black line, the reniform spot indistinct and pale, with a fuscous patch on the costa above it, the postmedial line extremely irregularly dentate and highly angled beyond the cell. Hind wing yellow, with a curved medial black band not reaching costa or inner margin, the outer area black, with irregular inner edge, and pale patches at apex and anal angle. Underside with a medial dark band, and the outer area of both wings dark.

In the form macula, from the Nilgiris, the abdomen is yellow, and the black medial band of hind wing is reduced to a spot.

Hab Nilgiris, Ceylon Eap 72 millim

B Tibiæ of male without tufts

2359 Catocala patala, Feld Reis Nov pl 112, fig 23, C & S. no 2279 Catocala inconstans, Butl III Het vii, p 76, pl 132, figs 2, 3 Differs from rama in the head, thorax, and fore wing being darker grey, more variegated with fuscous and brown. Fore wing with the antemedial line angled inwards at vein 1, a large black-edged spot below the reniform, the postmedial line deep black, with two prominent dentitions beyond the cell and one directed inwards above inner margin, a marginal series of black and pale specks. Hind wing orange-yellow, with the inner area

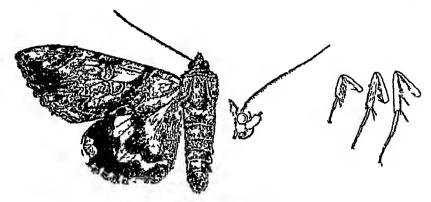


Fig 249 — Catocala patala, d

brown, the medial black band expanding at costa and on disk, the outer band with sinuous inner edge. Underside of fore wing with white beyond the medial band, hind wing with small spot at end of cell

Felder's figure makes the inner margin of the bind wing vellow

Hab NW Himalayas. Erp. 70-80 millim

2360 Catocala flavescens, n sp

Differs from rama in being yellower grey Fore wing with the postmedial line not so highly angled beyond the cell, a crenulate marginal line and series of ochreous spots. Hind wing deeper yellow, with the medial band broader on disk, the patches on marginal band at apea and towards anal angle yellow and large.

Hab Simla (Harford) Exp 62 millim Type in B M

2361 Catocala nymphæa, Esp Schmett Eur pl 105, fig 4
Catocala vestalis, Bossd Ind Meth p 168
Crtocala conjux, Freyer, Bestr Schmett vi, p 137, pl 569, fig 2
Catocala dotata, Wik Cat xiii, p 1212, C & S no 2277
Catocala persimilis, Warren, P Z S 1888, p 314, C & S
no 2279 a
Catocala tapestrina, Moore, Lep Atk p 166, pl v, fig 13, C & S
no 2284

Head, thorax, and abdomen dark red-brown Fore wing dark red-brown, variegated with brown, grey, fuscous, and ochreous, a

CATOCALA 441

pale patch in cell beyond the reniform, which has a black outline and a black-edged pale patch below it, the postmedial line highly angled and dentate, with a deep narrow sinus above inner margin, a marginal series of black and ochreons specks, an indistinct dentate submarginal line. Hind wing with the bands as in flavescens, but blacker. Underside with the medial and outer bands black.

The form tapestrina, from Simla and Sikhim, is larger and more richly coloured. Fore wing with some greenish grey round the reniform, and the spot below it small. Hind wing deeper orange and black

 $\it Hab$ N America, Europe, N W Himalayas, Sikhim $\it E_{1p}$ 54–70 millim

2362 Catocala distorta, Butl Ill Het vii, p 77, pl 132, fig 4

Differs from nymphæa in the thorax and fore wing being duller and more uniform fuscous brown, the latter not variegated and without the patches in and below cell, the postmedial line not dentate, but with a deep sinus from it to below end of cell and slight angle above inner margin. Hind wing with the medial band nariower on disk

Hab Kulu Erp 52 millim

SECT II Hind wing crimson

2363 Catocala prolifica, Wik Cat viii, p 1211, Butl Ill Het vi, pl 110, hg 9, C & S no 2280
Catocala afghana, Swinh Trans Ent Soc 1885, p 352, pl 9
fig 8, C & S no 2274

Head and thorax brownish black, irrorated with grey, abdomen fuscous. Fore wing brownish black, irrorated with grey, and suffused with black on basal costil, and medial areas, indistinct double anter and postmedial waved lines, the latter excurved beyond cell, traces of a submarginal line and marginal series of spots. Hind wing crimson, with obliquely curved medial black band, expanding into patches in parts, a marginal black band with sinuous inner edge, and widest at apical area, a white patch at apex, the cilia whitish. Underside of fore wing white, with antemedial and medial black bands conjoined at inner margin, the outer area black, widest at apex; hind wing crimson, the costal area white, the black bands as on upperside

The torm afghana has the head, thorax, and fore wing paler and

suffused with olive-brown instead of black

Hab Afghanistan , Biluchistan , N W Himalayas , Sikhim Exp 92 millim

2364 Catocala nupta, Linn Syst Nat vii, p 841 Catocala pacta, Hufn Berl Maq iii p 210 Noctua concubina, Borkh Schmett Eur iv, p 21 Catocala unicuba, Wlk Cat xiii, p 1210, Butl Ill Het vi, pl 110, fig 11, C & S no 2285

Differs from *prolifica* in the thorax and fore wing being browner, slightly suffused with black and with no olive tinge Fore wing with the lines more prominent, the postmedial line more irregularly dentate and with a sinus above inner margin Hind wing purer crimson

Hab Europe, Punjab Exp 80 millim,

2365 Catocala sponsalis, Wlk Cat xiii, p 1213, Butl Ill Het vi, pl 111, fig 1, C & S no 2283

Differs from nupta in the collar being black-edged, the fore wing browner, the lines black and prominent, the antemedial line more irregular, outwardly oblique to below the cell, and highly angled at vein 1, the postmedial line very highly angled beyond the cell, then highly dentate to inner margin. Hind wing rose-coloured, with the medial and marginal bands much reduced. Underside with the black markings reduced

Hab Nepal, Exp 84 millim

2366 Catocala concubia, Wil Cat xiii, p 1210, Butl Ill Het vi, pl 110, fig 10, C & S no 2276

Differs from prolifica in the head, thorax, and fore wing being greyer, the last with the postmedial line more irregularly dentate and sending a deep sinus inwards to below the reniform. Hind wing purer crimson, without any orange tinge. Underside of fore wing with the white areas broader, hind wing with the white running down to vein 3 between the medial and marginal bands.

Hab NW, Himalayas Exp 96 millim

SECT III Hind wing yellowish white

2367 Catocala nivea, Butl Cist Ent 11, p 241, & Ill Het 11, pl 33, ing 4, C & S no 2278 A

Head and thorax grey, slightly irrorated with black, the palpi and collar brown, abdomen grey. Fore wing brownish grey, irrorated with black, with a yellowish-white fascia below base of costa, and patches of the same colour on the reniform and postmedial line, subbasal and antemedial waved lines, the latter excurved, a fuscous spot on costa above reniform, the postmedial line excurved and highly dentate, with a black streak from it to outer margin above vein 5, a marginal series of black and white specks. Hind wing yellowish white, with irregular black medial band not reaching costa or inner margin, a broad black submarginal band, widest at costa.

Hab Japan, Thandiaui, Punjab Eap 100-116 millim.

Genus PHORICA

Phonica, Wlk Cat av, p 1732 (1858)

Type, P phasipennis, Wlk Range "Hindostan"

Differs from Batracharta in the palpi being rather shorter and more slender, the 3rd joint not enlarged at extremity Fore wing with the outer margin not so oblique and not hooked at outer angle

2368 Phorica phasipennis, Wik Cat xv, p 1732, C & S no 2329

d Head dark red-brown, thorax clothed with grey and redbrown scales, abdomen fuscous black. Fore wing vinous grevbrown, an obscure oblique line from costa before apex to base of inner margin, the area inside it with grey and brown streaks, a greenish yellow patch beyond it below cell, a white spot at

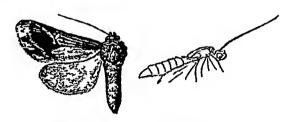


Fig 250 -Phorica phasipennis, & }

lower angle of cell, a large brown patch beyond cell, an indistinct dentate submarginal line, some brown streaks on marginal area, some white specks on costa towards apex. Hind wing dark brown, underside paler, with indistinct cell-spot

Hab' "Hindostan" Eip 46 millim

Genus BATRACHARTA

Batracharia, Will Journ Linn Soc vi, p 196 (1862) Pilosociuies, Hmpsn Ill Het viii, p 85 (1891)

Type, P obliqua, Wlk

Range Manipur, Nilgiris, Borneo

Palpi upturned, the 2nd joint reaching vertex of head, the 3rd long, naked, and blunt at extremity, antennæ with fasciculated cilia in male, abdomen long, and extending far beyond the hind wing, with a dorsal tuft on first two segments and slightly humped towards extremity, mid and hind tibiæ fringed with long hair on the upperside. Fore wing with the costa arched towards apex, the outer margin very obliquely rounded, the outer angle hooked. Hind wing with the apex much rounded

2369 Batracharta obliqua, Wlk Journ Linn Soc vi, p 196 Pilosociures variegata, Hmpsn Ill Het viii, p 85, pl 146, fig 20

Head ochreous, 2nd joint of palpi black. Thorax blue-black, with rufous scales on the collar and metathorax and olive scales on patagia, abdomen smoky black, with the dorsal tufts rufous. Fore wing with an oblique sinuous line from costa beyond middle to inner margin near base, the area inside it blue-black, variegated by black strigg and rufous, brown, and ochreous streaks, indistinct brown orbicular and reniform spots, the area beyond the line pale reddish, variegated by vinous, purplish brown, and black suffusion, the outer margin narrowly dark, sending a tooth inwards between veins 4 and 5, and with fine ochreous marginal lines. Hind wing fuscous brown, underside with basal area pale, each wing with a large black cell-spot

Hab Sikhim, Nilgiris, Borneo Eap 48 millim.

2370. Batracharta irrorata, n sp

of Differs from oblique in the head and thorax being brown and black. Fore wing with the oblique line highly excurved round end of cell, the area inside it more uniform blue-black, with a

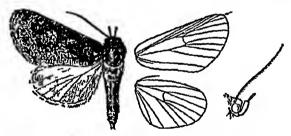


Fig 251 -Batracharta urrorata, & }

few ochreous specks and the indistinct orbicular and reniform spots brown, the area beyond the line red-brown, evenly irrorated with dark specks, the markings on outer margin slight. Hind wing and underside paler

Hab Manipur, 7000 feet (Doherty) Exp 48 millim Type in

coll Elwes

Genus ERYGIA

Erygia, Guen Noct III, p 49 (1852) Ansa, Wik Cat xv, p 1731 (1858) Calicula, Wik Cat xv, p 1807

Type, E apicalis, Guen
Range Throughout India, Ceylon, and Burma, Java, Australia
Palpi upturned and very slender, almost naked, the 2nd joint
leaching vertex of head, the 3rd rather variable in length,
antennæ minutely ciliated in male, metathorax with a large

ERYGIA 445

spreading tuft, abdomen with dorsal tufts on the proximal segments, male with a large anal tuft, tibiæ without spines, the femora fringed with long hair, as also the fore tibiæ, the mid tibiæ with shorter hair, the hind tibiæ and tarsi with long hair Fore wing with the apex quadrate, a tooth of scales at outer angle, the cilia crenulate

2371 Erygia apicalis, Guen Noct 111, p 50, C & S no 2368
Erygia usta, Wlk Cat XXIII, p 918
Calicula exempta, Wlk Cat XV, p 1808
Calicula squamiplena, Wlk Cat XV, p 1808
Ansa filipalpis, Wlk Cat XV, p 1731, Hmpsn Ill Het 1X, pl 165, fig 14, C & S no 2599
Dianthecia geometroides, Wlk Cat XXIII, p 722

Head and thorax clothed with dark and red-blown scales, abdomen with the dorsal tufts red-brown, male with the anal tufts black. Fore wing dark and red-brown, with numerous



Fig 252—Erygia apicalis, d

indistinct waved lines, the subbasal, irregular antemedial, and postmedial line excurved beyond the cell being the most conspicuous, a red-brown band inside the antemedial line from cell to inner margin, some red-brown marks near apex and outer angle, a crenulate marginal line. Hind wing fuscous, with a reddish patch near centre of outer margin

Hab Throughout India, Ceylon, and Burma, Java, Australia

 E_{1p} 42–46 millim

2372 Erygia reflectifascia, Hmpsn Ill Het viii, p 85, pl 146, fig 18

Differs from apicalis in being pale grey-brown. Forewing with the irregular antemedial line more erect, the postmedial line recurved to lower angle of cell, some subapical dark streaks, no rufous band on antemedial line or marks near apex and outer angle. Hind wing whitish, the outer area suffused with fuscous, a crenulate marginal line.

Another specimen has the fore wing very pale, the inner area

with patches of fuscous suffusion

Hab Sind, Nilgiris Exp 40 millim

Genus SYPNA.

Sypna, Guen Noct 111, p 144 (1852)

Type, S omicronigera Guen

Range Japan, Himalayas, Assam, Nilgiris, Burma, Java Palpi with the 2nd joint thickened and reaching vertex of head, the 3rd long, antennæ of male usually fasciculated, thorax quadrately scaled, the metathorax slightly tufted, abdomen with dorsal ridges and tufts of hair on proximal segments, tibiæ slightly hair, and usually without spines. Fore wing with the apex rounded, the cilia crenulate. Hind wing with the cilia crenulate, vein 5 from lower angle of cell

SECT I Mid tibiæ without spines.

A Antennæ of male fasciculated

2373 Sypna omicronigera, Guen Noct 111, p 145, C & S no 2517
Sypna mormoides, Butl Trans Ent Soc 1881, p 202, & Ill Het
vi, pl 111, fig 2, C & S no 2515
Sypna albovittata, Mooie, Lep Ath p 168, pl 5, fig 25, C & S
no 2499
Tavia dubitaria, Wik Cat xxxiii, p 930, C & S no 2509

Fore wing brown, more or less suffused with purple and irrorated with black, patagia with pale and dark bands. Fore wing with subbasal and medial black-brown bands, with waved edges and lines outlining them, the reniform large and very indistinct, a postmedial black-brown lumilate band with a lumilate black line beyond it, a submarginal series of small lumiles, usually with white specks beyond them. Hind wing dark brown, the area at anal angle purplish, with some waved black lines crossing it, a submarginal series of dark specks with white specks beyond them near anal angle. Underside with medial fuscous band on fore wing placed on a pale patch, hind wing with a dark-edged pale cell-spot.

Omicronigera is a small form from Sikhim and the Khásis, with the markings of fore wing not well-defined, dubitaria, from the NW Himalavas, is larger, with the bands more prominent, and sometimes with white suffusion before and beyond the subbasal and beyond the medial band, mormoides, from Sikhim, is the largest form, with the markings most prominent, the reniform may be ochreous, with some white specks round it, alboritata has some white suffusion on fore wing inside the antemedial line and beyond the postmedial

Hab NW Himalayas, Sikhim, Assam Evp 55-86 millim

2374 Sypna cœlisparsa, Wlk Cat xiv, p 1262, Bull Ill Het vi, pl 111, fig 4, C & S no 2505

Differs from typical omicronigera in the medial band of under-

447 SYPNA.

side being black and on hind wing more curved, situated on a prominent white band inwardly defined by fuscous, the outer area fuscous black, with white patches at outer angle of fore wing and towards apex and anal angle of hind wing

Some specimens have the cilia at apex of hind wing ochreous

Hab Assam, Java Exp 58 millim

2375 Sypna constellata, Moore, P Z S 1883, p 24, Waterh Aid, n, pl 159, fig 2, C & S no 2506

Differs from omicronigera in being yellow-brown without the purplish tinge, the base of antennæ white, thorax with white Fore wings uniform brown, slightly speckled with white, and with series of prominent white spots on the subbasal, antemedial, and postmedial lines, the costa and outer margin, a white spot in cell, the reniform white, with white spots round it, a sinuous submarginal dark line Hind wing with white spots on inner and outer margin near anal angle, the cilia ochreous near Underside ochreous, irrorated with black, the medial band more prominent and irregular, the postmedial area black, the outer ochreous except at centre of fore wing

Hab N W Himalayas Exp 72 millim

2376 Sypna tenebrosa, Butl Trans Ent Soc 1881, p 203, & Ill Het vi, pl 111, fig 7, C & S no 2528

Differs from the form dubitaria in being paler brown without the purplish tinge, the underside as in colisparsa, but without the purplish tinge on the black areas, cilia at apex of hind wing sometimes ochreous

Hab Sikhim Evp 60 millim

2377 Sypna punctosa, Wik Cat xxxiii, p 939, C & S no 2522
Tavia submarginata, Wik Cat xxxiii, p 941, C & S no Tavia biocularis, Moore, P Z S 1867, p 71, C & S no Sypna umbrosa, Butl Trans Ent Soc 1881, p 204, Ill Het vi, pl 111, fig 3, C & S. no 2529 Sypna ochreicilia, Hmpsn Ill Het viii, p 89, pl 147, fig 1

Fuscous brown, with a purplish tinge Fore wing with waved black subbasal, ante-, and postmedial lines, the last excurved round cell, a pale or dark speck in cell, the reniform dark and indistinct, or whitish in typical punctosa, a sinuous submarginal waved line, some pale specks on costs towards apex and a marginal series Hind wing with indistinct sinuous medial and straight submarginal lines Punctosa, from the NW Himalayas, is a greyish form, the cilia ochreous at apex of hind wing, underside with the medial line on a pale band Ochreicilia, from the Nilgiris, is similar, but fuscous brown biocularis, from Sikhim.

and a Travancore form are more suffused with purple, in the tormer the remform is pure white, with white specks above and

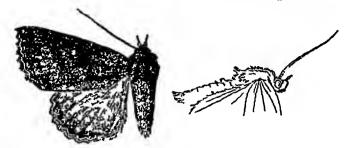


Fig 253 - Sypna punctosa & 1

below it submarginata=umbiosa is a fuscous-brown form, with no pale band on underside

Hab NW Himalayas, Sikhim, Shillong, Nilgiris, Pirmád, Travancore Exp 54 millim

2378 Sypna marginalis, n sp

Q Differs from the form submarquata of punctosa in the fore wing having a white spot on the antemedial line at inner margin, the reniform whitish, the submarginal sinuous line ochreous and not waved, hind wing with an evenly curved ochreous submarginal line, the marginal specks on both wings white Underside with a marginal ochreous band, irrorated with fuscous, on both wings Hab Sikhim (Knyvett) Eip 46 millim Type in coll

Hab Sikhim (Knyvett) Eip 46 millim Type in col Knyvett

2379 Sypna caliginosa, Will Cat axxii, p 940, C & S no 2503

Differs from the form submarginata of punctosa in being of a chestnut-red tinge, the sinuous submarginal line not waved, the series of specks white and just before the margin

Hab Sikhim Exp 50 millim

2380 Sypna cyanivitta, Moore, P Z S 1867, p 70, Waterk Aid, 11, pl 159, fig 4, C & S no 2508
Sypna brunnea, Moore, Lep Ath p 167, C & S no 2502

Ochreous brown, irrorated with fuscous Fore wing with short straight subbasal pale and dark line, the antemedial line bent inwards at costa, the postmedial line irregularly excurved round cell, the reniform narrow and elongate, sometimes with bluish edges, a very irregularly sinuous and dentate indistinct submarginal black line, an indistinct series of dark specks just before the margin Hind wing with traces of medial and submarginal sinuous lines, and series of dark specks before the margin Underside of both wings with indistinct cell-spot and medial line, a series of dark specks before the margin Hab NW Himalajas, Sikhim Exp 56 millim

449 STPNA

2381 Sypna curvilinea, Moore, P Z S 1867, p 69, pl 6, fig 4, C & S no 2507

Sypna moore, Butl Trans Ent Soc 1881, p 209, and Ill Het vi, pl 112, fig 2, C & S no 2514
Sypna fraterna, Moore, P Z S 1883, p 25, C & S no 2511

Sypna rubiifascia, Moore, P Z S 1883, p 24, C & S no 2526

Differs from cyanivitia in being dark ied-brown Fore wing with the subbasal line white, the ante- and postmedial lines double, slightly waved, and white, the former cuived, the latter forming a straight line with the white-edged remiform, the excurved portion beyond the cell being almost obsolete, a white speck in cell, some white scales on the marginal specks Underside as in omici oniger a

Typical curvilinea has the area between the ante- and postmedial lines of fore wing suffused with bluish white, except the costal portion and a patch on inner margin beyond the autemedial line, in substfascia the apical area of fore wing, the area beyond the postmedial line, and usually the line itself are suffused with bright rufous, in a Dalhousie specimen the ante- and postmedial lines are not waved

Hab NW Himalayas, Sikhim, Assam, Shillong, Karen Hills Erp 62 millim

2382 Sypna albilinea, Will Cat xiv, p 1261, Butl Ill Het vi, pl 112, fig 1, C & S no 2498

Differs from typical curvilinea in the speck in the cell of fore wing being black, a black patch on the submarginal line at apex Underside as in cælisparsu

Hab Sylhet Exp 60 millim

2383 Sypna lectilinea, Moore, P Z S 1867, p 70, C & S no 2523 Sypna kirbyi, Butl Trans Ent Soc 1881, p 209, Waterh Aid, n, pl 159, pg 5, C & S no 2512 Sypna prunosa, Moore, P Z S 1883, p 25, C & S no 2520

Differs from cyanivitia in the ante- and postmedial lines of fore wing being double, the former straight and almost medial, the latter slightly excurved round cell Hind wing with an ill-defined fuscous submarginal band with some ochreous scales on it side as in omicronigera

In rectilinea the ante- and postmedial double lines are white, the latter forming a straight line with the white edges of the reniform, in kubyi these lines are olive-grey, with olive-grey suffusion between them A Naga specimen is very dark

Hab NW Himalayas, Sikhim, Nágas E_{ip} 48-56 millim

- 2384 Sypna pulchra, Butl Trans Ent Soc 1881, p 208, and Ill $\overline{H}et$ vi, pl 111, fig 5, $C \le S$ no 2521
- d Head and thorax rufous and fuscous, abdomen fuscous Fore wing black, with a purplish tinge, waved subbasal antemedial, postmedial, and submarginal lines, the ante- and postmedial lines on ill-defined reddish othreous bands, a blinsh-white LOT II

450 NOCTUIDÆ

speck in cell, the reniform bluish white, with some specks round at, all-defined reddish ochreous patches on apical part of outer margin and near outer angle, a marginal series of black and white Hind wing with pale outer edge to the medial line, some pale suffusion at apex, and a streak towards anal angle Underside as in tenebrosa

Hab Sikhim Exp 50 millim

2385 Sypna catocaloides, Moore, P Z S 1867, p 71, pl 7, fig 3, C & S no 2504

Red-brown suffused with fuscous Fore wing with very indistinct pale waved subbasal, ante-, and postmedial lines, the latter excurved round cell, some green suffusion between the subbasal and antemedial lines on inner area, and beyond the postmedial line, a greenish spot in cell and band on discocellulars, the remform greenish, a sinuous submarginal line, with greenish streaks on apical area from it to the almost marginal series of greenish specks Hind wing black, with broad fulvous postmedial band, the apical part of outer area fulvous, the area towards anal angle streaked with rufous Underside orange fore wing with medial and postmedial oblique black bands not reaching costa or inner margin, a curved submarginal diffused band hind wing with black streak in cell, spot at end of it and band from lower angle to inner margin, a curved medial band and diffused submarginal band, both wings with almost marginal series of black specks

Hab Sikhim Exp 78 millim

B Antennæ of male bipectinated with short stiff branches.

2386 Sypna replicata, Feld Reis Nov pl 117, fig 25, C & S по 2525

Sypna apicalis, Butl Trans Ent Soc 1881, p 206, and Ill Het vi, pl 111, fig 6, C & S no 2500

Sypna lucilla, Butl Trans Ent Soc 1881, p 206, and Ill Het vi, pl 111, fig 8, C & S no 2513
Sypna plana, Moore, Lep Ath p 167, pl 5, hg 24, C & S

Sypna obscurata, Butl Trans Ent Soc 1881, p 207, and Ill

Het vi, pl 111, fig 9, C & S no 2516 Sypna floccosa, Moore, Lep Ath p 167, pl 5, fig 23, C & S

Sypna remisigna, Moore, P Z S 1883, p 25, Waterh Aid, u, pl 160, fig 4, C & S no 2524

Dark red-brown, suffused with fuscous Fore wing with antemedial black band with waved edges, indistinct sinuous medial, postmedial, and submarginal lines, the area between the medial and postmedial lines suffused with yellowish-white in lucilla, with grey or pale rufous in obscurata, with a similarly coloured patch beyond the line below costa. Hind wing with indistinct medial line on pale band in lucilla, both wings with marginal series of black lunules Underside ochreous, irrorated with black Fore wing with oblique medial and postmedial black bands not reaching costa or inner margin, a diffused submarginal band hind wing with medial line bent inwards towards costa, crenulate postmedial line and diffused submarginal band

In replicate = apicalis = plana the apex of hind wing is ochrous, floccosa has white suffusion on postmedial area of fore wing,

renisigna some white spots round the reniform stigma

Hab Dharmsála, Sikhim, Shillong, Tayoy Evp 50-58 mıllım

SECT II Mid tibiæ spined

2387 Sypna pannosa, Moore, Lep Ath p 168, pl 5, fig 12, C & S no 2518

Head red-brown, thorax greyish black, abdomen red-brown, the the dorsal tufts and extremity black. Fore wing red-brown with the dorsal tufts and extremity black suffused with grey, and irrorated with rufous, a basal black patch crossed by the subbasal rufous line, indistinct antemedial, medial, and postmedial rufous waved lines, the latter excurved beyond cell, a large black patch at apex and larger patch with slight white marks on it at outer angle Hind wing fuscous-brown, a large black patch with slight white marks on it at anal angle, some diffused black on submarginal area, a marginal series of black specks Underside with two straight medial black bands on fore wing and two crenulate lines on hind wing

Hab NW Himalayas, Khásis Exp 64 millim

Genus ERCHEIA.

Ercheia, Wik Cat xiii, p 1107 (1857)

Type, E cyllaria, Cram

Range Ethiopian, Oriental, and Australasian regions

Palpi upturned, the 2nd joint reaching vertex of head, the 3rd long in both sexes, antennæ minutely ciliated in male, thorax and abdomen smoothly scaled, mid and hind tibia spined, fore tibiæ of male clothed with rather long hair. Fore wing with the apex somewhat rounded, the cilia of both wings crenulate

2388 Ercheia cyllaria, Cram Pap Exot in, pl 251, C, D, C & S no 2583

Achea cyllota, Guen Noct 111, p 248, C & S no 2584 Ercheia diversipennis, Wih Cat xiii, p 1108, C & S no 2585

Achæa signivitta, Wik Cat xiv, p 1398

Achea polychroma, Wik Cat xiv, p 1400
Achea fusifera, Wik Cat xiv, p 1398, C & S no 2586
Melipotis ambidens, Feld Reis Nov pl 116, ing 9
Ercheia tenebrosa, Moore, P Z S 1867, p 66, C & S no

Ercheia pannosa, Moore, P Z S 1883, p 24, C & S no 2587

Ercheia uniformis, Moore, P Z S 1883, p 24, C & S no 2590 Ercheia zygia, Swinh P Z S 1885, p 465, C & S no 2592 Ercheia zura, Swinh P Z S 1885, p 465, C & S no 2591 Melipotis costipennosa, Moore, Lep Ath p 166, pl 5, fig 8, C & S no 2582 Melipotis strigipennis, Moore, Lep Ath p 165, C & S no 2588

Head, thorax, and fore wing pale reddish brown, the collar and patagia often streaked with black. Fore wing with indistinct, waved, antemedial line, a postmedial line very much excurved beyond the cell, a waved submarginal line, the orbicular represented by a speck, the remform indistinct, with dark outline Abdomen and hind wing fuscous black, the latter with three medial white spots, which may be disconnected, and the costal spot obsolescent or conjoined into a band, a spot near centre of outer margin, the cilia white at apex and outer angle. Underside ochreous white, irrorated with black, fore wing with oblique crenulate postmedial line and broad submarginal diffused band, hind wing similar, but with a lunule at end of cell and the line more irregular.

The form cyllaria has the fore wing suffused with fuscous and streaked with black, the spots of hind wing disconnected, cyllota has dark basal and apical costal patches, polychroma has the lines double and two ling-marks below end of cell, fusifera has a pale band along inner and outer margin, the remainder of the wing deep

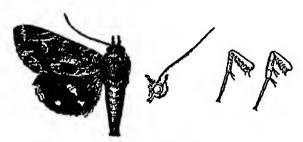


Fig 254 — Ercheia cyllaria, d

fuscous, diversipennis has the medial band to hind wing with a dark inner edge, and usually the basal area paler, the fore wing marked like cyllaria, but paler, pannosa is pale olive with the basal and apical patches, zygia has the pale band along inner and outer margins, but ill-defined

Hab Throughout India, Ceylon, and Barma, Borneo Erp 50-

60 millim

Genus HYPOCALA

Hypocala, Guen Noct 111, p 73 (1852)

Type, H deflorata, Fabr Range Throughout the tropical and subtropical zones Palpi porrect, triangularly scaled, and rostriform, antennæ ciliated in male, thorax and abdomen smoothly scaled, tibiæ but slightly hairy, and without spines. Fore wing with the costa slightly arched towards apex, which is rectangular. Larvæ with four pairs of abdominal prolegs.

2389 Hypocala subsatura, Guen Noct 111, p 75, C & S no 2292

Hypocala aspersa, Butl P Z S 1883, p 164, C & S no

Hypocala subsatura, var limbata, Butl Ill Het vii, p 76, pl 131, fig 13

Head and thorax dark violaceous grey, abdomen orange, with broad black bands above Fore wing dark violaceous grey, a dark spot at base, an antemedial waved line, angled below median nervure, a black speck in cell, remiform a large dark limite, the



Fig 255 Hypocala subsatura, 5

postmedial line sinuous, highly excurved beyond the cell, then bent inwards to below reniform, a submarginal rich brown double line filled in with whitish, arising from the outer margin below apex and angled ontwards to the margin at vein 3 Hind wing orange, the costal area black-brown, conjoined to a large spot in end of cell, a broad fascia from base below cell, the outer area

black-brown, angled inwards at vein 2, and with a submarginal orange spot at centre and a small marginal spot near anal angle, the cilia orange Underside orange, the costal and apical areas of fore wing and costa of hind wing ochreous and brown speckled, disk of fore wing black, with a large yellow spot, hind wing with large cell-spot, the outer area marked as above

In the typical form the markings of the fore wing are indistinct, in aspersa the ground-colour is much more variegated the markings prominent, in limbata the fore wing is dark chocolate with a broad pale inner band speckled with brown, and angled upwards to lower end of cell, a triangular grey patch on costa before apex

Hab NW and E Himalayas, Sylhet Exp 34-50 millim

2390 Hypocala deflorața, Fabr Ent Syst 111, p 472, C & S no 2288 Hyblæa rostrata, Fabr Syst Ent 111, 2, p 127, C & S no 2291 Hypocala plumicornis, Guen Noct 111, p 75 Hypocala angulipalpis, Guen Noct 111, p 77, C & S no 2286 Hypocala efflorescens, Guen Noct 111, p 77, C & S no 2289

Differs from subsatura in the head, thorax, and fore wing being paler. Hind wing with the orange area larger, the marginal black area reduced and the two orange spots conjoined. Underside with the black on fore wing reduced to two bars, and that on hind wing also much reduced.

The form plumicornis corresponds to aspersa, and rostrata to

lımbata

Hab E and S Africa, NW. Himalayas, Canara, Nilgins Exp = 30-42 millim.

2391 Hypocala moorei, Butl A M N H (6) x, 1892, p 21 Hypocala efflorescens, Moore, Lep Ceyl in, pl 160, figs 5, 5a (nec Guen)

Differs from deflorata in the inner edge of the marginal band of hind wing being even, the orange spot absent, the small marginal spot elongate

Hab W Africa, NW Himalayas, Sikhim, Canara, Cevlon

Exp 44-56 millim

2392 Hypocala violacea, Butl Trans Ent Soc 1879, p 6 Hypocala clarissima, Butl A M N H (6) x, 1892, p 21

Differs from subsatura in the head, thorax, and fore wing being uniform red-brown, irrorated with dark specks Underside with the black markings on fore wing reduced to two bars, and those on hind wing to a small cell-spot and bar towards anal angle

In the Ceylon form, clarissima, the black markings on upperside of hind wing and underside of fore wing are rather narrower

Hab Ceylon, Cachar, Burma Exp 46 millim

2393 Hypocala biarcuata, Wik Cat xv, p 1816

Head, thorax, and fore wing pale brown, irrorated with black, abdomen yellowish, the last segment black, with pale anal tuft Fore wing with a submarginal black line in the form of two curves touching the margin at apex, centre, and outer angle Hind wing orange with marginal black band, broad at costa, and narrowing to anal angle, the cilia pale Underside yellow, both wings with the costal areas ochreous and brown speckled, and with a submarginal black band not reaching costs or inner margin, fore wing with cell-spot

Hab Canara, Tenasseiim Exp 40 millim

2394 Hypocala lativitta, Moore, P Z S 1877, p 606, pl 60, fig 4, C & S no 2290

Differs from biarcuata in the fore wing being darker, with large patches of grey suffusion on inner area and on costa before apex. the submarginal line much less regular, and broken by diffused brown patches and black streaks at apex and centre. Hind wing with black cell-spot, prominent on underside

Hab Khásis, Nágas, Tenasserim, Andamans Exp 48

mıllım

Genus PTEROCYCLOPHORA

Pterocyclophora, Hmpsn Ill Het 1x, p 109 (1893)

Type, P pictimargo, Hmpsn

Range Ceylon, Java

Palpi with the 2nd joint thickened and reaching vertex of head,

the 3rd obliquely poriect and naked, antennæ bipectinated with short branches in male, thorax and abdomen smoothly scaled, mid tibiæ spined and with terminal tuft, hind tibiæ with medial and terminal tufts. Fore wing with the costa highly arched, the apex produced and acute, the cilia highly crenulate. Hind wing with the outer margin produced to a point at vein 4, inner margin with a deep incision at middle forming a fringed lobe, the cilia highly crenulate, the cell of both wings somewhat short

2395 Pterocyclophora pictimargo, Hmpsn Ill Het ix, p 110, pl 165, fig 16

Head, thorax, and abdomen grey, irrorated with dark brown scales. Fore wing ochreous, with purplish suffusion and irrorated with dark brown scales, the reinform indistinct and pale ochreous, traces of a waved ferruginous medial line excurved round cell, a spot beyond the cell on vein 5, a straight submarginal ferruginous line bent outwards to apex, the area beyond it brown, with a series of antemaiginal white strige. Hind wing yellow with ante- and

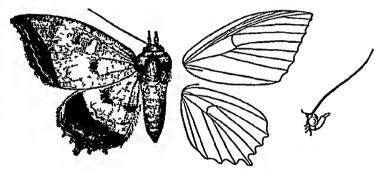


Fig 256 —Pterocyclophora pictimargo, Q 1

postmedial brown lines, the latter obsolete towards costa, the apical area fuscous, the outer area brown, inwardly edged by a purplish line, then a ferruginous line and some ferruginous suffusion, antemarginal and marginal white lines. Underside ochreous, irrorated with brown, except on inner area of fore wing, which has medial and postmedial brown bars, hind wing with three lines on inner area.

Hab Ceylon, Java Erp 66 milim

Genus ANISONEURA

Anisoneura, Guen Noct 111, p 160 (1852)

Type, A salebrosa, Guen

Range Himalayas, Assam, Sylhet, Poona

Palpi with the 2nd joint thickened and reaching vertex of head, the 3rd of moderate length, antennæ of male with minute fascicules of cilia, thorax quadrately scaled, abdomen with dorsal ridges of

bair, tibiæ but slightly hairy, the mid tibiæ spined Fore wing with the costa arched towards apex, the cilia crenulate Hind wing with the cilia crenulate, the cell short, vein 5 from lower angle of cell

SECT I. Fore wing produced at apex, the outer margin oblique, hind wing with veins 6 and 7 on a long stalk in male, a short stalk in female.

2396 Anisoneura hypocyanea, Guen Noct 111, p 162, C & S no 2530

Dark red brown, suffused with fuscous, the head and collar black, two black bars on thorax Fore wing with a short irregularly dentate subbasal line, a very irregularly dentate antemedial line, oblique and prominent below the cell, a dark patch in end of cell, patches of yellow and black scales beyond and below end of cell, a highly crenulate postmedial oblique line, an indistinct double crenulate submarginal line, a lunulate black line near the margin. Hind wing with two indistinct antemedial lines, a crenulate medial black line, a nearly straight postmedial line, with an

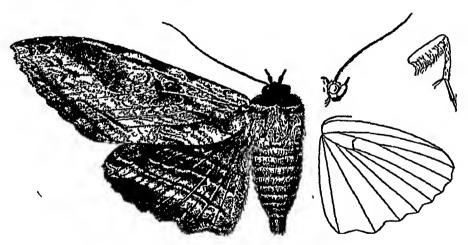


Fig 257 — Anisoneura hypocyanea, &

undistinct line beyond it, a slightly sinuous submarginal line Underside of fore wing with crenulate postmedial line, the outer area suffused with purple; hind wing suffused with purple and with some white on the veins, crenulate antemedial and medial lines

2 paler; the thorax and costa of fore wing as far as the postmedial line grey

Hab NW Himalayas, Sikhim, Assam. Exp 90-124 millim

SECT II Fore wing not produced at apex, the outer margin much less oblique, hind wing with veins 6 and 7 from cell

2397 Anisoneura salebrosa, Guen Noct in, p 161, C. § S no 2531

Q Differs from hypocyanea in being darker, more uniformly suffused with fuscous, and with a purplish tinge, head and collar not black. Fore wing with the lines less oblique, without patches of yellow and black scales below and beyond cell, an ochreous patch beyond centre of postmedial line, with an oblique black streak above it. Hind wing with the postmedial line more waved and without the indistinct line beyond it. Underside pale without purplish suffusion and with two dark medial and a pale submarginal line.

Hab Sylhet, Poons Exp 70 millim

Genus SPIREDONIA.

Speiredoma, Hubn Verz p 272 (1818) Sericia, Guen Noct in, p 172 (1852)

Type, S feducia, Stoll

Range Ethiopian, Oriental, and Australian regions.

Differs from the 2nd section of Anisoneura in the mid tibiæ not being spined

2398 Spiredonia anops, Guen Noct 111, p 173, Moore, Lep Ceyl 111, pl 164, fig 7, C & S no 2555

Black-brown shot with purple Fore wing with waved subbasal, antemedial, and medial black lines, a spot in cell, a double post-medial waved line excurved from vein 2 to lower angle of cell, an

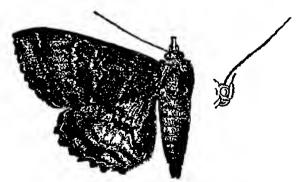


Fig 258 - Spiredonia anops, of

indistinct sinuous submarginal double line. Hind wing with medial lunulate line and traces of a sinuous double submarginal line.

Hab Throughout India, Ceylon, and Burma, Andamans, Australia Evp 70-78 millim

2399 Spiredonia alix, Guen Noct 111, p 171
Tavia substituens, Will Cat xiv, p 1276, C & S no 2557
Syrnia sparsa, Will Cat xiv, p 1280
Sericia calamistrata, Moore, P Z S 1883, p 26, C & S no 2556

Differs from anops in being fuscous brown with hardly any purple shot. Fore wing with two sinuations in the postmedial line beyond the cell, with black inside them and forming a figure 3, the line more regularly waved above inner margin, the double submarginal line regularly waved. Hind wing with the double waved submarginal line more prominent, underside with the inner area purplish, with black medial and white subanal spots.

Typical alia has some white suffusion on postmedial and submarginal lines of both wings, whilst substruens is uniformly dark

Hab Sind, NW and E Himalayas, Assam, Andamans, Nicobars, Java Exp 56-64 millim

2400 Spiredonia feducia, Stoll, Cram Pap Exot v, pl 36, fig 3, C & S no 2552

Phalæna zamis, Stoll, Cram Pap Exot v, pl 36, fig 11, C & S no 2554

Speiredonia retrahens, Wll. Cat xiv, p 1294, C & S no 2553
Sericia parvipennis, Wll. Cat xiv, p 1297
Speiredonia conspicua, Feld Reis Nov pl 113 fig 7
Ommatophora albifascia, Wll. Cat xxxii, p 947

Differs from also in the middle loop of the figure 3 on fore wing being produced inwards almost to the discocellulars, a rufous spot in cell

Feducia and parvipennis are small forms, the former has some purplish grey patches on both wings, the latter has ochreous patches

on disk and centre of margin of both wings

Zamis, ietrahens, and albifascia are large forms, the first has purplish patches on both wings, in the 2nd these are very prominent, whilst in the 3rd there is ochreous or white suffusion on the submarginal area of fore wing and postmedial area of hind wing

Hab Throughout India, Ceylon, and Burma, Andamans, Java

Exp 64-78 millim

Genus NYCTIPAO.

Nyctipao, Hubn Verz p 271 (1818) Argiva, Hubn Verz p 272 Patula, Guen Noct in, p 176 (1852)

Type, N crepuscularus, Linn Range Ethiopian, Oriental, and Australian regions Differs from Spiredoma in the mid and hind tibiæ being spined and almost naked, the fore wing broader NYCTIPAO 459

SECT I (Patula) Male with the costal half of hind wing aborted to form a fold tuined over on the upper surface and containing a large glandular patch of flocculent hair, vein 4 running to the functional apex, 5 from centre of discocellulars, and 6 to the fold, 7 and 8 very minute to near base of costa

2401 Nyctipao macrops, Linn Syst Nat XII, III, p 225 Moore, Lep Ceyl III, pl 164, fig 5, C & S no 2533 Noctua bubo, Fabr Sp Ins u, p 209 Patula boopis, Guen Noct III, p 178, C & S no 2532 Patula walkeri, Butl A M N H (4) XVI, 1875, p 406

Fuscous brown, with a slight purplish tinge Fore wing with short subbasal and waved antemedial and medial black lines, a very large fulvous occilus beyond end of cell, with black outline and black comma-shaped pupil with blue streaks and specks on it, two irregularly waved postmedial lines excurved round the occilus and bent inwards below it, the outer one expanding into a patch at costa, two sinuous series of black submarginal spots, the inner series indistinct and obsoleto towards costa. Hind wing with medial black line excurved round cell, a postmedial series of lunules with two sinuous series of spots beyond them, the inner series least distinct. Underside with irregular postmedial series of white spots and regular submarginal series of lunules to each wing

Walkers, from Africa, has the black patch on costa of fore wing

larger, the white spots on underside smaller

d with tufts of orange hair in anal segment of abdomen round

claspers

Hab Throughout Africa, Madagascar, India, Ceylon, and Burma Exp 134-160 millim

- SECT II (Argua) Male with vein 3 running to the functional apex of hind wing, the costal fold obsolete, the glandular patch small
 - A Male with veins 4 to 8 of hind wing moderately developed in the aborted costal area
- Nyctipao hieloglyphica, Drury, Ill Evot Ins 11, p 3, pl 11, fig 1, C & S no 2535
 Phalena mygdonia, Cram Pap Exot 11, pl 174, F
 Phalena harmonia, Cram Pap Exot 11, pl 174, E
 Noctua ulula, Fabr Sp Ins 11, p 211, no 9
- 3 Rich black-brown Fore wing with a whorl-shaped black mark beyond end of cell, bilobed and expanding at head, where it is outlined with blue, an oblique yellow bar from costa near apex, in one specimen reaching outer margin
- P Brown, with black strime, fore wing with the oblique bar white, both wings with traces of postmedial band of whitish marks and white spot on fore wing above vein 3

Hab Madagascar, throughout India, Ceylon, and Burma. Malacca, Philippines, Java, Ternate Exp 88 millim

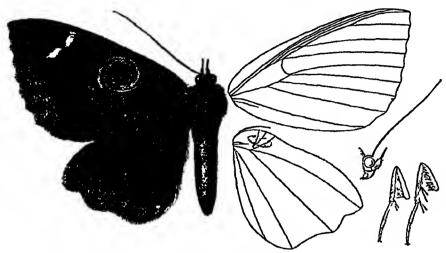


Fig 259 - Nyctipas hieroglyphica, of

2403 Nyctipao caprimulgus, Fabr Sp Ins 11, 210, no 6, C & S no 2534

Nyctipao exterior, Wlk Cat xiv, p 1306, Butl Ill Het vi,

pl 112, fig 3, C & S no 2540 Nyctipao obliterans, Will Cat alv, p 1307 Nyctipao truncata, Moure, P Z S 1877, p 608, C & S no 2544

d Differs from hieroglyphica in having the whorl on fore wing larger, the yellow subapical bar absent Abdomen with tufts of

orange hair in anal segment round claspers

The form obliterans is like the male, but with indistinct antemedial line to fore wing and line from the whorl to inner margin, hind wing with traces of sinuous medial line In the form exterior there is a sinuous postmedial white line on both wings, broad and angled near costa of fore wing, the outer area suffused with grey or sometimes mostly white on hind wing Another form is brown, the wings suffused with black as far as the postmedial line Underside with irregular postmedial series of white spots to both

Hab Throughout India, Ceylon, and Burma Evp. 90-104

mıllım

B Male with the glandular patch and veins 4 to 8 of hind wing still more reduced

2404 Nyctipao strigipennis, Moore, P Z S 1883, p 25, C & S

Differs from the female of hieroglyphica in having the oblique subapical bar of fore wing brown and indistinct

marginal series of specks, fore wing with traces of ante- and postmedial waved lines and brown-centred ochreous lunule at end of cell, hind wing with traces of antemedial waved line Underside with crenulate medial line, hind wing with black cell-spot and spot at middle of costa

Pale ochreous brown, with some dark brown suffusion inside the oblique line, which is double, some specimens with a black

spot on centre of inner margin of fore wing

Larva with two pointed doisal tubercles on anal somite, olivegreen, speckled with fuscous and paler below, dorsal and lateral bands of black streaks, some greenish-white blotches on back and sides the stigmata black, the tubercles reddish Food-plant

Hab Formosa, throughout India, Ceylon, and Burma, Java E_{ip} 84–90 millim

SECT II Hind wing with the outer margin hardly crenulate and but slightly angled at vein 4

- 2410 Hylodes drylla, Guen Noct III, p 209, pl 24, fig 10 Hulodes saturmoides, Guen Noct III, p 209, C & S no 2577 Hypopyra restorans, Wik Cat xiv, p 1328, C & S no 2576
- Differs from caranea in being ochreous brown, the head Fore wing uniform, with the postmedial line and collar dark more oblique towards unner margin, often dentate and with fuscous suffusion beyond it

2 priler ochreous brown, with no dark suffusion inside the post-

medial line

Hab NW Himilavis Assam, Calcutta, Burma, Perak Eιρ, δ 72, ♀ 76 milun

Genus AGONISTA

Agonista, Rogenhoff, Feld Revs Noi , Lep 11, pl 113, fig 5 (1864-67) Ligniodes, Guen Noct in, p 123 (1852), prædec

Type A hypoleuca, Guen

Range Himalayas Nilgiris, Burma, Malacca, Borneo Java Nilgiris, Travancore, Ceylon, Assam,

Palpi with the 2nd joint reaching vertex of head, the 3rd of moderate length antennæ simple, thorax and abdomen smoothly scaled mid tibie spined hind tibie slightly fringed with hair Fore wing with the costa arched the apex slightly produced and Hind wing with the cell very short, vein 5 from near lower angle, 6 much curved

- 2411 Agonista hypoleuca, Guen Noct 111, p 125, C & S no 2495
- d Black-brown, shot with purple, cilia of both wings white Underside of thorax and abdomen ochreous, the wings white, fore wing striated with brown, and the basal, costal, and apical areas brown hind wing slightly speckled with brown, and some brown near apex

Q Dull brown, with darker stries a curved medial dark line to both wings and submarginal series of pale specks, hind wing

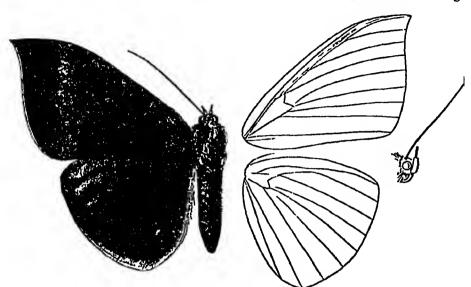


Fig 261 -Agonista hypolema, &

with pale postmedial line. Underside much browner than in male, a cell-spot, postmedial line, and series of submarginal specks to each wing

Hab Sikhim, Bhutan, Assam, Moulinein Eip, & 92,

♀ 100 millim

- 2412 Agonista endoleuca, Guen Noct 111, p 124, C & S no 2494
- o Differs from hypolouca in the inner area of hind wing being pure white Underside of fore wing brown, of hind wing white with brown strie, and the apex brown in the Burmese form, whilst in the typical form from Java the white is confined to the inner area and the abdomen has the extremity yellow above

Hab Tenasserim, Malacca, Java Erp 94 millim

- 2413 Agonista reducens, Wik Cat viii, p 1236, Moore, Lep Ceyl
 iii, pl 163, figs 3, 3 a, C & S no 2496
 Lygmodes reducens, var E-antiqua, Hmpsn Ill Het viii, p 89
 Lygmodes cihata, Moore, P Z S 1867, p 69, C & S no. 2493,
 Lygmodes disparans, Wik Cat xv, p 1817
- d Differs from hypoleuca in being duller and greyer brown Underside brown, the hind wing greyish white with brown striw, except on costal area

The underside browner than in hypoleuca The variety E-antiqua has a stigma in the shape of the old English letter E at

end of cell of fore wing Hab Sikhim, Nilgiris, Travancore, Ceylon $E_{1}p$ 84 millim

Genus POLYDESMA

Polydesma, Boisd Faun Ent Madag, Lep p 108 (1833)
Pandesma, Guen Noct 11, p 438 (1852)
Felinia, Guen Noct 111, p 322 (1852)
Briarda, Wik Cat x111, p 1097 (1857)
Ericeia, Wik Cat x111, p 1089
Talariga, Wik Cat xv, p 1634 (1858)
Girpa, Wik Cat xv, p 1849
Belciana, Wik Journ Linn Soc x1, p 182 (1862)
Beana, Wik Journ Linn Soc x1, p 183
Bamra, Moore, Lep Ath p 159 (1882)
Vapara, Moore, Lep Ath p 163
Oromena, Moore, Lep Ath p 160
Pitacota, Moore, Lep Ceyl 111, p 46 (1885)
Koptoplax, Hingsi III Het x111, p 126 (1891)

Type, P umbricola, Boisd

Range Ethiopian region, Japan, China, Oriental and Aus-

tralian regions

Palpi upturned, the 2nd joint reaching vertex of head, thorax smoothly scaled, abdomen with usually slight basal ridges and tufts of hair, tibiæ without spines and more or less flinged with hair Fore wing with the apex somewhat rounded. Hind wing with vein 5 from above angle of cell

Lana with four pairs of abdominal prolegs, the first two pairs

rudimentary

SECT L Antennæ of male minutely ciliated

A. Palm with the 3rd joint short

a (Pandesma). Male with the base of hind wing smoothly scaled on undersule

a'. Mul legs of male with no tuft of long hair from the femore-tibial joint

2414 Polydesma mundata, Wil. Cat xv, p 1701, Hinpsn Ill Het ix, pl 163, fig 14, pl 176, fig 7 (larva)
Bamra acronyctoides, Moore, Lep Ath p 160, C & S no 2432

Grey, suffused with pale red-brown, palpi black at base, the collar rufous Fore wing with sinuous subbasal, antemedial, postmedial, and submarginal indistinct lines, an oblique black streak from centre of costa to centre of submarginal line, crossing a longitudinal streak from the discocellulars to the submarginal line, some black streaks from the submarginal line towards outer margin, the streak above outer angle extending within the line Hind wing white, the outer area more or less suffused with fuscous

Larva Dull brownish green above, in some specimens purplish whitish below, two small yellowish dorsal spots on each somite except the first and last, a hump on the eleventh somite. Foodplant, Albizzia. Spins a cocoon amongst grass and leaves, and secretes a whitish powder from ventral area when pupating

Hab Kangra, Čeylon Erp 44 millim

2415 Polydesma albicola, Wil. Cat xiv, p 1515, C & S no 2433
Agriopis discalis, Moore, P Z S 1867, p 57, pl vii, fig 2, C & S
no 2434

Bamra diplostigma, Hmpsn Ill Het 1x, p 109, pl 163, fig 7

Differs from mundata in being white, very slightly suffused with fuscous. Fore wing with traces of numerous waved fuscous lines, the subbasal and antemedial black lines arising from black spots on the costa, beyond the end of cell is a black streak with incomplete loops above and below it, thus forming a very incomplete figure of 8. Hind wing with the base white the outer two-thirds fuscous, with a white streak at anal angle. Underside with nearly the whole fore wing and outer half of hind wing suffused with fuscous

The form diplostigma, from Ceylon, is whiter, a fuscous patch on the costa above the mark at end of cell, hind wing and underside very slightly fuscous

Hab Sikhim, Assam, Ceylon Evp 54 millim

2416 Polydesma turbata, WA Cat xv, p 1720, C & S no 1930

Q Fuscous brown, the vertex of head white Fore wing with traces of numerous waved black lines, a large white basal patch not reaching costa or inner margin and conjoined to a large patch in end of cell, extending upwards to the costa, a large patch on the apical part of costa, with two blown marks on it at the origin of the postmedial and submarginal lines Underside of hind wing with indistinct curved postmedial line

Hab "N India" Eap 46 millim

2417 Polydesma sublimis, Feld Reis Nov pl 111, fig 23, C & S no 2445 Agriopis lepida, Moore, P Z S 1867, p 56 C & S no 2435

White, with a slight yellowish suffusion, the base of palpi black Fore wing with subbasal and antemedial slightly sinuous black lines, the area between them suffused with red-brown, the antemedial line with a prominent black spot below the cell, an indistinct speck in cell, a grey lunule at end of it, indistinct double medial and postmedial waved lines and irregularly sinuous submarginal line, the costal half of this postmedial area suffused with red-brown and parts of the inner half with greenish grey, two black spots on the postmedial line, a crenulate marginal line Hind wing white, the outer area suffused with fuscous, a series of black marginal lunules

In Sikhim specimens the dark markings of the fore wing are

more extensive

Hab NW Himalayas, Sikhim Erp 48 millim

2418 Polydesma quenavadı, Guen Noct 11, p 438, Moore, Lep Ceyl 111, pl 156, fig 1, C & S no 2448 Pandesma anysa, Guen Noct 11, p 439. Cerbia fugitiva, WK. Cat xiv p 1365 Pandesma jubra, Swinh P Z S 1889, p 413, pl 44, fig 4 Pandesma similata, Moore, P Z S 1883, p 24, C & S no 2444

Brownish grey Fore wing with subbasal, antemedial, medial, excurved postmedial, and submarginal waved lines, the orbicular and reniform indistinct, a marginal series of specks. Hind wing with the basal area whitish, the outer brownish, with postmedial and submarginal indistinct waved lines. Underside white, with a broad submarginal fuscous band and marginal series of black specks to each wing

The form jubra, from Burma, is lilacine grey, with some ochreous on head and collar, abdomen ringed with ochreous. Fore wing with a black speck on antemedial line, a brown diffused submarginal band. Hind wing with the outer area black. A Ceylon

specimen is still darker

Hab Throughout India, Ceylon, and Burma Erp 40-56 millim

2419 Polydesma fasciata, Moore, Lep Ath p 163, C & S no 2358

of Olive-brown, suffused with fuscous. Fore wing with indistinct subbasal and antemedial sinuous black lines, the area between them suffused with black, the reniform small, with dark outline, traces of a dentate medial line, an irregularly dentate postmedial line bent inwards below end of cell, an irregular submarginal line, with slight black suffusion on it near apex and inner margin. Hind wing dark fuscous, the chia pale brown underside with cell-spot and indistinct sinuous medial line, the apex of each wing with a vinous tinge.

Hab Sikhim Erp 42 millim

2420 Polydesma catenata, Moore, Lep Ceyl III, p 550, pl 214, fig 10, C & S no 2459
Panilla apicalis, Butl Ill Het vii, p 74, pl 132, fig 1

Pale red-brown Fore wing with some black spots on the costa and some subbasal blackish patches, an antemedial sinuous line, two indistinct medial lines excurved at end of cell, a postmedial black line excurved between veins 3 and 5, and with a black patch beyond it from the costa to vein 3 with some blue scales on it, traces of a sinuous submarginal band, a marginal lunulate line Hind wing with indistinct lunule at end of cell and medial sinuous line, a sinuous black postmedial line, traces of a submarginal line, a fine marginal black crenulate line

Hab Dharmsala, Ceylon Esp 24 millim

2421 Polydesma vetusta, Will Cat xxxiii, p 875, C & S no 2467

Grey, irrorated with fuscous Fore wing with waved antemedial narrow dark band, traces of medial waved line, a spot at end of cell, a postmedial waved black line excurved beyond cell and with an indistinct fuscous line beyond it, traces of a submarginal sinuous line Hind wing with trace of medial line, a postmedial waved black line with an indistinct fuscous line beyond it, a submarginal indistinct waved line

Hab Karachi, Mhow Exp 84 millim

b Mid legs of male with a tuft of long hair from the femoro-tibial joint

2422 Polydesma costimacula, Guen Noct 11, p 429, C & S no 2203 Remigia triangulata, Will Cat axxii, p 1017

Ochreous-brown, the head and collar black, abdomen tinged with fuscous. Fore wing with antemedial, postmedial, and submarginal black patches on costa, a dark line on discocellulars, expanding into a small square spot at lower angle of cell, traces of waved medial, postmedial, and submarginal lines and of two fuscous submarginal spots. Hind wing with the apical area fuscous, continued to inner margin as a diffused submarginal band Hab Sylhet Exp 46 millim

b (Polydesma) Male with the basal area of hind wing clothed with long silky hair on underside

Polydesma umbricola, Boisd Faun Ent Madag, Lep p 108, pl 13 fig 5
Polydesma laudula, Guen Noct 11, p 441
Polydesma boaimoides, Guen Noct 11, p 441, Moore, Lep Ceyl 111, pl 156, fig 2, C & S no 2446 (part)
Polydesma mastrucata, Feld Reis Nov pl 111, fig 31
Polydesma scriptilis, Guen Noct 11, p 442, C & S no 2449

Brown suffused with fuscous Fore wing with indistinct waved subbasal, antemedial, medial, and postmedial lines, each arising from a black spot on the costa, a crenulate pale submarginal line with some fuscous suffusion inside it, a marginal series of lunulate spots. Hind wing with indistinct antemedial and medial sinuous lines, a crenulate submarginal pale line with fuscous suffusion inside it, a marginal series of lunulate spots. Underside with the area inside the crenulate submarginal line of both wings broadly suffused with fuscous.

Hab W and S Africa, Madagascar, Formosa, throughout India, Ceylon, and Burma, Andamans Eip 50 millim

2424 Polydesma otiosa, Guen Noct 11, p 442, C & S no 2448
Alamis brevipalpis, Wth Cat xiii, p 1051, C & S no 2446
(part)

Differs from umbricola in being smaller and paler, the fuscous suffusion on underside confined to the costal area of hind wing, the whole of the hind wing being silky ochreous in male

Hab NW Himalayas, Sylhet, Nilgiris Exp 44 millim

B Palpi with the 3rd joint longer

- a Hind legs of male tufted with long hair to the extremity of the tarsi a' (Fehrua) Mid tibic of male with no masses of floculent hair contained in a fold
- 2425 Polydesma spissa, Guen Noct in, p 322, C & S no 2706
 Briarda decens, Wik Cat vin, p 1098, Butl Ill Het vi, pl 110,
 fig 6, C & S no 2339

Grey-brown Fore wing with numerous indistinct waved lines, an antemedial waved line dentate on vein 2 and with a diffused ied-brown band inside it, a dark line on discocellulars, with an ill-defined brownish patch on the costa above it, a postmedial waved line excurved beyond the cell, a triangular patch on costa before apex. Hind wing with the basal area ochreous the outer fuscous, a pale streak at anal angle, cilia pale at apex and anal angle.

Hab Throughout India, Ceylon, and Burma, Andamans Exp

42-50 millim

2426 Polydesma præcedens, Wik Cat xm, p 1098, Butl Ill Het vi, pl 110, fig 7, C & S no 2340
Brialda antecedens, Wik Cat xm, p 1099

The Pale reddish brown fore wing with numerous indistinct waved dark lines, a dark brown patch on base of costa, a waved autemedial line, a large subtriangular medial patch on the costa extending to vein 2 and bounded by the postmedial line, which is recurved round its lower end and then obsolete, a dark apical patch with a black streak on it, a crenulate marginal line. Hind wing fuscous, underside with cell-spot and indistinct medial line.

2 with a dark spot on fore wing below the cell on the ante-

medial line

Hab "India," Ceylon, Sumatra Eip, ♂ 52, ♀ 44 millim

2427 Polydesma metaspila, W/K Cat ann, p 1032, Moore, Lep Ceyl in, pl 154, fig 6, C & S no 2296
Ophiusa pallidilinea, W/K Cat av, p 1832
Tolocampa moola, Swinh P Z S 1885, p 459, pl 27, fig 10, C & S no 2297
Hypætia soidida, Butl Trans Ent Soc 1886, p 414

Ochieous brown, the collar black. Fore wing irrorated with dark brown, a comma-shaped black mark above inner margin before middle, faint traces of the orbicular and reniform, a post-medial ochreous brown-edged line, with a series of fuscous marks beyond it. Hind wing pale, with diffused medial band, the outer area fuscous

Hab Poona, Nilgiris, Ceylon, Java, Fiji Erp 42 millim

- 2428 Polydesma rectivitta, Moore, P Z S 1881, p 353, C & S no 1917
- 2 Differs from metaspila in being darker and less uniform in colour, the collar not black. Fore wing with no spot above inner

margin, an indistinct lumilate oblique antemedial narrow band, the orbicular and remiform spots large and very indistinct, an oblique narrow postmedial band with some white specks on the veins beyond it, an irregularly dentate submarginal line with diffused fuscous on its inner edge, a marginal series of specks Hind wing dark fuscous, the cilia ochreous

Hab Sikhim Exp 46 millim

b' (Ericia) Mid tibiæ of male with large masses of flocculent hair contained in a fold

2429. Polydesma mangulata, Guen Noct 111, p 210, Moore, Lep Ceyl 111, pl 156, figs 6, 6 a, C & S no 2472

Hulodes errophora, Guen Noct 111, p 210, C & S no 2470

Ericeia sobria, Wik Cat xiii, p 1089

Ophisma deficiens, Wik Cat xiv, p 1383

Remigia optativa, Wik Cat xiv, p 1510

Remigia congressa, Wik Cat xiv, p 1510

Remigia perfidiosa, Wik Cat xiv, p 1511

Remigia pertendens, Wik Cat xiv, p 1512, C & S no 2473

Remigia congregata, Wik Cat xv, p 1847, C & S no 2700

Remigia optatura, Wik Cat xv, p 1848

Remigia amanda, Wik Cat xv, p 1848

Girpa aliena, Wik Cat xv, p 1848

Girpa aliena, Wik Cat xv, p 1849

Remigia comitata, Wik Cat xxxiii, p 1018

Hypopyra apicalis, Wik Journ Linn Soc vii, p 178

Girpa fraterna, Moore, Lep Ceyl 111, p 94, pl 156, figs 5, 5 a

C & S no 2471

Hulodes umbrosa, Wik Char Undescr Het p 91

Violaceous grey, ochreous, reddish or fuscous brown, more or less irrorated with fuscous Fore wing with subbasal, antemedial, medial, postmedial, and submarginal indistinct sinuous dark lines, the minute orbicular and large reniform spots indistinct, an almost

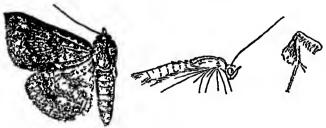


Fig 262 - Polydesma inangulata, d 1

marginal series of dark specks. These markings may all be almost obsolete or fairly prominent, each line may be double and consist of disjoined strigæ or lunules, inside the submarginal and medial lines the area is often suffused with fuscous, or in the form erophora with ferruginous, this form having the reniform elongate, prominent, and ferruginous, a grey apical patch is often present in the ochreous forms and a dark spot on the submarginal line above inner margin Hind wing with indistinct medial line, with crenulate line beyond it, a waved submarginal line and almost marginal series of dark specks,

the submarginal line often has dark suffusion inside, and in the form eriophoia there are some rufous patches on it

In one specimen the outer area of both wings is bluish white Hab Natal, China, throughout India, Ceylon, and Buima, Andamans, Australia Eip 48-54 millim

b (Belciana) Hind legs of male not tufted with long hair

2430 Polydesma tetraspila, Wik Cat xxxiii, p 1018, C & S no 2302

Differs from costimacula (p 468) in the vertex of head being grey Fore wing with the antemedial costal patch minute or absent, the submarginal much further from the apex, no dark mark on discocellulars, medial, postmedial, and submarginal faint lines more regularly waved, a sinuous black mark is sometimes present on the medial line from vein 3 to inner margin and a series of specks on postmedial line. Hind wing with very indistinct ante- and postmedial, submarginal and marginal fuscous bands

Hab Sunla, Sikhim Erp 48 millim

2431 Polydesma capacior, Will Cat xv, p 1634

Yellowish brown, the head and collar fulvous. Fore wing with traces of subbasal line, a sinuous antemedial line, the orbicular a dark-ringed grey speck, a similar speck on origin of vein 2, the ienitorm a similar large rounded spot with some dark marks on it, a highly crenulate postmedial line bent inwards below end of cell, an irregularly sinuous submarginal pale line with fuscous suffusion on each side of it. Hind wing with indistinct ring-spot at end of cell, an irregularly dentate postmedial line. Underside suffused with orange fulvous.

In some specimens the basal and costal areas of fore wing are suffused with brownish ochreous

Hab Khasis, Singapore, Sumatra Eup 48 millim

2432 Polydesma biformis, Wik Cat xv, p 1671 Pandesma hemodi, Feld Reis Nov pl 111, fig 25, C & S no 2442

Head pale and dark brown, the vertex green, thorax green, the base of collar brown, abdomen pale fuscous. Fore wing white, suffused with pale bright green, a large subbasal red-brown patch on the costa with a black streak below it, a white spot in cell, au indistinct medial line arising from a red-brown spot on the costa and slightly excurved round cell, traces of a lumulate white postmedial line, a large red-brown patch with black inner edge occupying the whole apical area and a smaller similar patch at outer angle. Hind wing fuscous brown, the basal and inner areas pale. Underside suffused with fuscous

Hab Nilgiris, Ceylon, Borneo Eip 52 millim

2433 Polydesma eurychlora, Wik Cat xv, p 1670, C & S no 2437

Differs from biformis in the abdomen being yellow, the hind

wing bright yellow, the outer area fuscous brown, with some whitish streaks near anal angle. Underside with broad submarginal band to both wings

Hab Sikhim, Canara, Nilgiris Erp 52 millim

- *2434 Polydesma? catocalina, Moore, Lep Ath p 156, pl 5, fig 3, C & S no 2259
- I Head and thorre ochreous-grey, abdomen ochreous Fore wing olive-grey, a broad basal brownish band not reaching inner margin and outwardly bordered by a straight line, a narrow medial waved band enclosing a large reniform spot, a curved post-medial line with a band beyond it, widest at costa and sending a spur to middle of outer margin, a marginal series of specks. Hind wing ochreous, with a marginal brownish band narrowing to anal angle.

Hab Sikhim Eip 40 millim

- 2435 Polydesma ornata, Moore, P Z S 1833, p 23, pl 6, fig 3, C & S no 2438
- d Head and thorax clothed with rufous and dark brown scales, abdomen yellow, with the dorsal tufts black. Forewing red-brown, with large greenish-grey patches on inner basal area and on central outer area, double-waved subbasal, ante- and postmedial lines filled in with greenish grey, the last excurved, the orbicular and remform whitish, the latter with black centre, a greenish spot on costa before apex. Hind wing yellow, the outer area reddish fuscous, with a white strigg near anal angle

Hab Bombay Erp 48 millim

- *2436 Polydesma thoracica, Moore, Lep Ath p 161, pl 5, fig 7, C & S no 2440
- Q Head and thorax olive-yellow, palpi and collar chestnut, abdomen fuscous. Fore wing chestnut, with very ill-defined basal, antemedial, and postmedial conjoined bands of olive-grey blotches traveised by interrupted sinuous black lines, the orbicular and reniform represented by white spots, a submarginal waved olive-grey fascia, a series of cilial specks. Hind wing fuscous, darkest towards the outer margin, a cuived postmedial pale line with a white line on it above anal angle, a submarginal series of white specks and a streak at anal angle, cilia tipped with white

Hab Sikhim Erp 58 millim

- 2437 Polydesma striatovirens, Moore, P Z S 1883, p 23, pl 6, fig 2, C & S no 2439
- Palpi pale brown, head and thorax blue-green variegated with brown, abdomen yellowish fuscous. Fore wing blue-green, evenly variegated with red-brown, indistinct subbasal, antemedial, postmedial, and submarginal waved black lines, a marginal series of black specks, some whitish specks on costa. Hind wing fuscous, with traces of a medial line, the base pale, a blue-green patch

towards anal angle, underside with cell-spot and waved postmedial line

Hab Sikhim, Khásis Eip 60 millim

2438 Polydesma lichenoides, n sp

IIead, thorax, and abdomen pinkish ochreons, palpi banded with black, collar fringed with green, the patagia green, abdomen with the large medial dorsal tuft black in front and the terminal segment black the anal tuft ochreous Fore wing sap-green, a basal black patch, an antemedial black band, obsolescent below the cell and with pinkish suffusion on each side of it, a black and white spot and pinkish patches at end of cell a medial black brind, obsolescent below cell, an irregularly waved postmedial line arising from a black patch on the costa, with some pink inside it and bluegrey outside, some irregular black and grey marks on outer area from middle to outer angle, a marginal series of black and white Hind wing pale vellow, with indistinct ante- and postmedial lines and broad blackish marginal band with black and white streak at anal angle, calla of both wings fulvous, black, and white Underside ochieous, megularly banded and blotched with black

Hab Nágas, 6000 feet (Doherty) Eip 44 millim Type in coll Elwes

- 2439 Polydesma terminigera, WTh Cat xx, p 1850, Moore, Lep Ceyl 111, pl 149, fig 7, C & S no 1817
- Q Head and thorax whitish, abdomen pale fuscous Fore wing pale ied-brown, with indistinct waved subbasal and autemedial, sinnous postmedial and dentate submarginal lines, a large white triangular patch from costa before middle to base and outer angle on inner margin, a white apical costal patch, crossed by the postmedial and submarginal lines. Hind wing pale, with indistinct postmedial fuscous line and marginal band.

Hub Poona, Canara, Ceylon, Sylhet, Karen Hills Exp

36 millim

SECT II Antennæ of male fasciculated

- A (Oromena) Male with the aper of fore using not truncate
- 2440 Polydesma ielinquenda, W lk. Cat v, p 1802, C & S no 2436
- Q Dark fuscous reddish, suffused with grey Fore wing with indistinct pale waved subbasal, antemedial, and postmedial lines, traces of small orbicular and remform spots, a submarginal series of whitish lumiles. Hind wing pale, the outer area darker, with marginal series of white specks

Hab Sikhim, Mergui Eip 50 millim

- 2441 Polydesma commutanda, Wari A. M. N. H. (6) vii, 1891, p. 426 Oromena reliquenda, Moore, Lep. Ath. p. 160 (nec. relinquenda, W.L.)
 - d Head, thorax, and abdomen pale red-brown Fore wing

golden-olive suffused with black, with a large white patch on the basal area and white postmedial band, indistinct subbasal and antemedial waved black lines, interrupted by the white patch, the remitorm ill-defined and blackish, a series of blackish lunules, irrorated with white beyond the postmedial white band, a submarginal series of black and white lunules. Hind wing orange-jellow, a sinuous postmedial black line, the outer area black, with a white streak at anal angle.

Hab Sikhim Erp 56 millim

- B (Coptoplax) Male with the aper of fore wing truncate, the truncate margin being bent over on the upper surface of the wing, the veins towards apex distorted
- 2442 Polydesma lindsayı, Hmpsn Ill Het vin,p 127, pl 154, fig 17
- d Differs from commutanda in being much darker, the abdomen dark brown Fore wing without white markings, the area between the subbasal and antemedial lines blackish, irrorated with white Hab Nilgiris Eip 54 millim

Genus HOMOPTERA.

Homoptera, Boisd Icon Reg Anim p 522 (1829) Alamis, Guen Noct 111, p 3 (1852) Dugaria, Wilk Cat 1111, p 1075 (1857) Meepa, Wilk Cat 11111, p 915 (1865)

Type, H lunata, Drury, from N America

Range Nearctic, Neotropical, Ethiopian, Oriental, and Australian

regions

Palpi with the 2nd joint reaching vertex of head, the 3rd rather short, antennæ of male with short fasciculate cilia, metathorax with a slight tuft, abdomen with prominent dorsal tufts, tibiæ of male heavily clothed with hair, the mid tibiæ spined

Larvæ with four pairs of abdominal piolegs, the first two pairs

aborted or rudimentary

- SECT I (Alams) Male with the greater part of the underside of fore and hind wings clothed with silky hair
- 2443 Homoptera umbrina, Guen Noct in, p 4, C & 8 no 2455
 Alamis albicincta, Guen Noct in, p 4
 Alamis hypophæa, Guen Noct in, p 4, C & 8 no 2453
 Alamis continua, Wik Cat xxin, p 877, Forsayeth, Trans Ent
 Soc 1884, p 412, pl 15, fig 9 (laiva), C & 8 no 2451
 Homoptera detersa, Wik Cat xxin, p 888, C & 8 no 2461
 Homoptera plumipes, Wik Cat xxin, p 888, C & 8 no 2463
 Alamis yendola, Swinh Trans Ent Soc 1891, p 150

Dark red-brown Fore wing with sinuous subbasal and antemedial black lines and numerous indistinct waved reddish lines on basal half of wing, a sinuous postmedial black line, excurred beyond cell and slightly angled at veins 4 and 6, with an irregular fuscous black band beyond it, an indistinct irregular fuscous submarginal line Hind wing with numerous fuscous waved lines and a sinuous postmedial black line

The form albicincta has the area beyond the antemedial line of fore wing and the outer area prominently suffused with white, other specimens have the fore wing suffused with fuscous as far as the submarginal line

Larva green, the dorsal area whitish, a yellow line dividing the eyes, a yellow lateral line with blue specks on it, the 1st pair of abdominal prolegs aborted, the 2nd pair rudimentary

Hab Throughout India Exp, 3 30-38, 9 38-48 millim

SECT II (Dugaria) Male with no silky scales on underside of fore wing, hind wing with only the subcostal area so clothed, more especially towards apex

2444 Homoptera glaucinans, Guen Noct 111, p 6, Rmpsn Ill Het 18, pl 165, figs 1, 7, 15, C & S no 2452
Alamis tigilla, Guen Noct 111, p 6
Alamis niendar, Wlk Cat x111, p 1047
Homoptera infligens, Wlk Cat x111, p 1068, C & S no 2454
Homoptera solita, Wlk Cat x111, p 1068, Forsayeth, Trans Ent Soc 1884, p 411, pl 14, fig 9 (larva), C & S no 2466
Dugaria cilipes, Wlk Cat x111, p 1076
Homoptera delineosa, Wlk Cat x11, p 1076
Homoptera disjuncta, Wlk Cat xxxiii, p 885
Homoptera antica, Wlk Cat xxxiii, p 887, C & S no 2458
Hypogramma validula, Wlk Cat xxxiii, p 887, C & S

Differs from umbrina in the fore wing having the sinuous lines on basal half very numerous, fine, and inwardly oblique, the postmedial line oblique below vein 4. Hind wing with the lines numerous, fine, and oblique, the postmedial line oblique and arising



Fig 263 —Homopiera gliucinans, & 1

from apex Underside with the silky hair towards apex of hind

wing in male fuscous

no 2400

Both wings may be much suffused and blotched with fuscous, and the postmedial line may be black and prominent or indistinct, in the form disjuncta = antica there is a diffused white medial Y-shaped band to fore wing, whilst in another form the medial area of fore wing is black

Larva with the two anterior pairs of abdominal prolegs aborted, pale green, with broad yellow lateral stripe

Hab Congo, S Africa, throughout India, Ceylon, and Burma, Java Exp 36-42 millim

SECT III (Homoptera) Male with no silky scales on underside of either wing

2445 Homoptera albidens, Wlk Cat xxxii, p 916, C & S no 2423

3 Bufous-brown Fore wing with indistinct subbasal line, slightly sinuous antemedial line, reniform with a few white scales round it, a sinuous postmedial line excurved beyond cell, and with a narrow white band beyond it, a marginal lunulate line. Hind wing with the basal and costal areas pale, the rest of the wing suffused with rufous, especially on each side of the nearly straight postmedial black line, a crenulate marginal black line.

Hab Combatore Exp 30 millim

2446 Homoptera vinosa, n sp

Q Differs from albidens in being much darker and suffused with purple, abdomen dorsally suffused with black. Fore wing with the basal area darkest, indistinct double antemedial and medial waved black lines, a white speck in cell, the remform greenish and elongate, a double postmedial line angled beyond the cell; a triangular dark mark with white edges on the costa before apex, which is suffused with white, two black submarginal spots, a large patch of white suffusion on inner halt of outer area. Hind wing fuscous, with slight white marks on vein 2, a marginal series of white specks, the cilia fuscous, underside suffused with pink, and with a black cell-spot and crenulate medial and postmedial lines.

Hab Nágas, 6000 feet (Doherty) Esp 26 millim Type in

coll Elwes

Genus PANILLA

Panilla, Moore, Lep Ceyl 111, p 93 (1884) Caduca, Moore, Lep Ceyl 111, p 96

Type, P dispila, Wlk

Range Throughout India and Ceylon, Sumatra

Palpi obliquely porrect, fringed with long hair below, and with long hair from their base, the 3rd joint minute, antennæ ciliated in male, metathorax with a slight tuft, abdomen with dorsal tufts at base, tibiæ fringed with long hair in male, and without spines, coxæ of fore legs with long tufts of hair. Fore wing short, the apex rounded

2447 Panilla dispila, Wik Cat xxxiii, p 890, Moore, Lep Ceyl iii, pl 156, fig 12, C & S no 2469

Bright red-brown Fore wing with indistinct curved waved antemedial, medial, and postmedial dark lines arising from black spots on the costa, the last with a black patch beyond it at centice, traces of a pale waved submarginal line, a marginal series of black specks, with a spot at centic of margin, some black specks on costa towards apex. Hind wing with antemedial and medial

sinuous dark lines, traces of a pale waved submarginal line, a marginal series of black specks



Fig 264 —Panilla dispila, o

The form from the NW Himalayas is large, with a prominent black triangular patch on the costa of fore wing before apex

Hab NW Himalayas, Poona, Nilgiris, Ceylon Exp 26-34 millim.

2448 Panilla albopunctata, Will Cat xm, p 1068, C & S no 2457 Alamis meleagris, Feld Reis Nov pl 111, ng 32, C & S no 2450

Head, thorax, and abdomen clothed with dark red-brown, grey, and fuscous scales. Fore wing dark red-brown suffused with grey, which covers the whole of the wing except the costal and outer areas, which are irrorated with grey, indistinct waved subbasal, antemedial, and medial lines, orbicular small, dark, and elongate, reniform prominent, with some grey on it, a dentate postmedial line and indistinct submarginal line, a marginal series of dark specks. Hind wing red-brown, some grey at base, an indistinct medial line and dentate postmedial, the whole outer area except apex covered with white spots and short waved strie, a series of black specks on margin

Hab "N India," Ceylon Exp 40 millim.

Genus MELIPOTIS

Melipotis, Hubn Zutr 1, p 17 (1806-1818) Anumeta, Wil. Cat xv, p 1769 (1858) Palpangula, Stand Stett Ent Zent xl, p 324 (1879)

Type, M jucunda, Hubn, from N America

Range Nearctic region, Europe, Central Asia, N W Hima-

layas, Sind

Palpi with the 2nd joint obliquely upturned and reaching vertex of head, the 3rd long and porrect, antennæ with short fasciculated cilia in male. Thorax and abdomen smoothly scaled, mid and hind tibiæ with medial and terminal tufts of long spinous hairs. Fore wing with the apex somewhat quadrate

SECT I (Anumeta) Fore, mid, and hind tibes with the spinous tufts immensely developed

2449 Melipotis atrosignata, Will Cat xv, p 1770, C & S no 2190

Head, thorax, and abdomen grey Fore wing yellowish grey

suffused with fuscous, antemedial, postmedial, and submarginal waved lines with pale edges, a series of marginal specks. Hind wing white, with diffused ante- and postmedial fuscous band, the

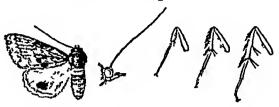


Fig 265 -Melipotis atrongnata, &

apex fuscous, a large black spot near middle of outer margin, a dark marginal line

Hab Hyderabad, Sind. Evp 34 millim

SECT II (Melipotis) Mid and hind tibiæ with slight spinous tufts, fore tibiæ without the tufts

2450 Melipotis cashmirensis, n sp

d Head and thorax brown, irrorated with grey, abdomen pale brown. Fore wing brown, thickly suffused with grey, a medial white band, bounded inwardly by a dark brown line and outwardly by a postmedial line much excurved beyond cell, especially beyond lower angle, to which it is sharply excurved, a dark line on discocellulars, a nearly straight submarginal indistinct pale line. Hind wing brown, with the interspaces of basal area whitish, a white spot on outer margin at vein 2, the cilia white

Hab Kashmir (McArthur) Exp 38 millim. Type in coll

Leech

SECT III Male with large tufts of bair on inner side of palpi on 2nd and 3rd joints, tibiæ with the tufts slight. Hind wing with a patch of differently formed scales in base of cell, and a tuft of hair from base of costal nervure on upperside

2451 Melipotis fulviceps, n sp

Dark fuscous brown, with a bronze tinge; head and legs bright orange-yellow, the tufts on palpi of male black. Fore wing slightly irrorated with grey, some white specks on costa towards apex, and a series on outer margin. Hind wing paler. Hab. Simla (Harford). Exp. 32 millim. Type in B. M.

Genus GNAMPTOGYIA, nov

Type, G. multrlineata, Hmpsn

Range NW Himalayas

Palpi upturned, smoothly scaled, and reaching just above vertex of head, antennæ long and thick, with fasciculated cilia in male,

thorax and abdomen smoothly scaled, hind tibiæ much distorted and bent, the terminal pair of spurs minute Fore wing with the apex acute

2452 Gnamptogyia multilineata, n sp



Fig 266
Gnamptogyia multilineata, 3 }

d White, thickly irrorated with brown scales. Fore wing with numerous oblique lines from near apex to inner margin, the outer area fuscous, its inner edge rufous. Hind wing crossed by numerous oblique lines, the outer area fuscous, its inner edge rufous.

Hab Simla (Harford) Exp 24 millim Type in B M

Genus LYNCESTIS

Lyncestis, Wilk Cat xi, p 632 (1857) Jarasana, Moore, Lep Ath p 132 (1882)

Type, L amphir, Cram

Range Nearctic region, Jamaica, India

Palpi upturned and reaching vertex of head, the 2nd joint roughly scaled, antennæ minutely ciliated in male, very slight tufts on metathorax and on pioximal segments of abdomen Fore wing somewhat narrow, the apex rounded, the cilia crenulate Tibiæ without spines and moderately hairy

2453 Lyncestis amphix, Cram Pap Exot 11, pl 134, C, C & S no 2333

Jarasana lativitta, Moore, Lep Ath p 132, C & S no 2338

d Head, thorax, and abdomen grey, a black line on collar Fore wing grey, with faint traces of numerous waved and dentate lines, some black specks at lower angle of cell and a series on

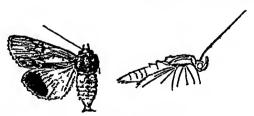


Fig 267 — Lyncestis amphix, of 1

outer margin Hind wing opalescent white, with a broad black marginal band from the apex to vein 2

Hab Benares, Karáchi, Poona, Nilgiris Exp 38 millim

2454 Lyncestis unilinea, Swinh P Z S 1885, p 452, pl 27, fig 7, C & S no 2140

9 Differs from amphix in being browner grey Fore wing

with a black fascia from the base below the cell to outer margin at vein 3, the marginal specks more prominent. Hind wing with the margin and veins near it tinged with fuscous instead of a marginal band.

Hab Poona, Ahmedabad Eap 42 millim

Genus GNAMPTONYX, nov

Type, G vilis, Wlk

Range Aden, NW India

Palpi short and obliquely upturned, the 2nd joint roughly scaled, the 3rd minute. Antennæ fasciculated in male. Thorax and abdomen smooth. Fore tibia with a pair of long crooked terminal spines, mid tibia spined and clothed above with large recumbent scales. Fore wing somewhat quadrate at apex.

2455 Gnamptonyx vilis, Wik Cut xxxiii, p 889, C & S no 2468



Fig 268 — Gnamptonyx viles, of

Pale ochreous brown Fore wing more or less suffused with fuscous, slightly waved ante- and postmedial dark lines, the latter excurved beyond the cell, a pale medial band and patch beyond the cell often present, an irre-

gularly waved ochreous submarginal line Hind wing with postmedial dark line and waved ochreous submarginal line Underside almost uniform whitish

Hab Aden, Punjab Eap 32-36 millim

Genus PSEUDOPHIA

Pseudophia, Guen Noct 111, p 234 (1852)

Type, P illunaris, Hubn, from Europe

Range Nearctic and Palæarctic regions, Aden, NW India Differs from Gnamptonyv in the palpi having the 3rd joint longer, the fore tibia without the crooked spines, the mid tibia without the large scales, the mid and hind tibiæ spined

2456 Pseudophia benenotata, Warr P Z S 1888, p 313, C & S

of Pale grey Fore wing with indistinct subbasal and antemedial dark lines, the reniform brownish, with dark edges, an indistinct postmedial line excurved beyond the cell, a pale waved submarginal line, with brown inner edge, a crenulate marginal line. Hind wing pale brownish fuscous, the cilia whitish

Hab Egypt, Rawal Pindi Exp 30 millim

2457 Pseudophia indecisa, Wil. Cat vii, p 829, C & S no 1884 Caradrina sabulosa, Swinh P Z S 1884, p 516, pl 47, fig 6, C & S no 2114



Fig 269 —Pseudophia indecisa, & 🛊

Brownish ochreous Fore wing with waved subbasal, antemedial, postmedial, and submarginal lines, the postmedial highly excurved beyond the cell, then irregularly recurved to its lower angle, a dark mark on

discocellulars, a series of marginal white specks, the medial and outer areas often suffused with fuscous. Hind wing white, the apical area fuscous. Underside white, with the outer area of fore wing and apex of hind wing fuscous.

Hab Aden, Murree, Campbellpur Eup 25-32 millim

2458 Pseudophia devia, Swinh P Z S 1884, p 520, pl 48, fig 3, C & S no 2441

Q Brownish grey Fore wing with very indistinct subbasal, ante- and postmedial waved lines, the orbicular and reniform indistinct, a very irregular submarginal pale line with some blackish marks on it, some marginal pale specks. Hind wing with broad black postmedial band and some fuscous on outer margin. Underside whitish, with submarginal fuscous band to each wing with waved outer edge.

Hab Karáchi Evp 45 millim

2459 Pseudophia infrequens, Swinh P Z S 1884, p 517, pl 47, fig 11, C & S no 1916

Q Sandy-brown Fore wing with faint traces of the reniform, antemedial, postmedial, and submarginal lines Hind wing browner, with the cilia pale Underside pale, slightly darker towards outer margin

Hab Hyderabad, Sind, Karichi Evp 30 millim.

Genus CATEPHIA

Catephia, Ochs Eur Schmett iv, p 94 (1816) Aedia, Hubn Verz p 260 (1818) Anophia, Guen Ann Soc Ent Fr x, p 81 (1841) Zarima, Moore, Lep Ath p 162 (1882)

Type, C alchemista, Schiff, from Europe

Range Europe, S African subregion and Oriental and Aus-

tralian regions

Palpi smooth and reaching just above vertex of head, thorax hairy, abdomen with dorsal tufts and ridges of scales on proximal segments, this hairy and without spines. Fore wing with the apex nearly rectangular

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SECT I (Catephia) Antennæ of male almost simple

A Fore legs in male with thick tufts of scales from coice, and very long fringe of hair from femora and tibiæ

2460. Catephia linteola, Guen Noct in, p 44, Moore, Lep Ceyl in, pl 159, fig 1, C & S no 2347

Head and thorax black and dark red-brown with a purplish gloss, abdomen black. Fore wing red-brown more or less suffused with black, a short subbasal line, waved antemedial, medial,

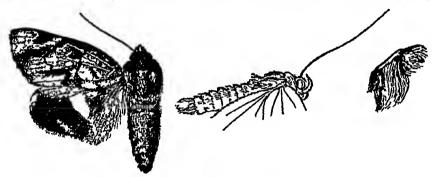


Fig 270 - Catephia linteola, & 1

and postmedial lines, the last highly angled outwards beyond end of cell, a small black spot or ring-spot in cell and indistinct remform spot with ring-spot below it, traces of an irregularly waved submarginal line, the apex irrorated with white. Hind wing black, with a broad pure white medial band not reaching inner margin, the apex white, and some white submarginal spots more or less developed towards anal angle.

Hab S Africa, Madagascar, throughout India, Ceylon, and Burma, Borneo, Australia, Marshall Islands Evp 56-66 millim

B Fore leg of male without the tufts of scales and long fringes

2461. Catephia flavescens, Butl Ill Het vu, p 74, pl 131, fig 12

Head and collar ochreous, thorax rufous suffused with black, abdomen blackish. Fore wing ochreous, with subbasal, antemedial, postmedial, and submarginal waved lines, the postmedial excurved beyond the cell, the orbicular and remiform large with dark outlines, dark patches on costa at centre and at apex, the inner area blackish, with some blue scales near outer angle. Hind wing yellowish, with the outer area black-brown, leaving the apex yellow

Hab Dharmsála, Sikhim Evp 38 millim

2462 Catephia acronyctoides, Guen Noct in, p 47, C & S no 2352
Anophia olivescens, Guen Noct in, p 48, pl 14, fig 11, C & S
no 2355
Anophia descetuses Will Cat viv. p. 1128

Anophia discistriga, Wik Cat xiii, p 1128 Anophia epundoides, Wik Cat xxxiii, p 917, C & S no 2354 Fuscous, the thorax and fore wing suffused with olive or white Fore wing with indistinct subbasal and waved antemedial lines, traces of orbicular, reniform, and claviform spots, a postmedial double waved line slightly excurved beyond cell, traces of an irregular submarginal line, a marginal series of black specks Hind wing pure white, the inner margin suffused with fuscous, the outer half of wing black, with white patches at apex and anal angle. Underside of fore wing with the basal two thirds white, with spot at end of cell

In acronyctoides the suffusion is white, the reniform and a patch above it more or less white, in olivescens the suffusion is olive, in discistring from Africa and a Sikhim specimen the white area of the hind wing is reduced, and in this and the Australian form the white patches at apex and anal angle are often obsolete. In a form from Dharmsála the colour is blackish without olive or grey suffusion, the postmedial line of fore wing more angled beyond cell, and with no white patches at apex and anal angle of hind wing

Hardly separable from the European leucomelas, Linn Hab W and S Africa, throughout India, Ceylon, and Burma, Andamans, Java, Australia Exp 40 millim

2463 Catéphia dulcistriga, Wlk Cat xv, p 1811 Anophia longinquua, Swinh Trans Ent Soc 1890, p 233

Differs from acronyctoides in the fore wing being shorter and broader, the thorax and fore wing variegated with pale brown, the renitorm spot whitish. Hind wing with the white confined to a round patch at end of cell, the cilia white at apex and anal angle Hab S Africa, Sikhim, Rangoon. Exp. 25-30 millim.

- 2464 Catephia diphtheroides, Moore, Lep Ceyl III, p 118, pl 159, fig 6, C & S no 2353
- Q Head and thorax silvery grey variegated with fuscous and black, the abdomen fuscous. Fore wing silvery grey, subbasal, antemedial, and postmedial waved black lines and dentate submarginal line, indistinct antemedial, medial, and postmedial subsidiary lines, the orbicular, reniform, and claviform grey spots with black outlines, a marginal series of black specks. Hind wing with the base white, the inner area and outer half fuscous, with white patches at apex and anal angle.

Hab Ceylon Exp 40 millim

- O Male with lateral tufts of hair from near base of abdomen and immensely developed anal tufts, legs fringed with long hair, but without tufts, antennæ moderately ciliated, inner margin of hind wing with large tufts of hair
- 2465 Catephia thricophora, n sp
- d Palpi purplish, vertex of head, collar, and patagia dark green, thorax and abdomen ochreous brown, the latter with the

lateral tufts pale and the anal tufts ochreous and black Fore wing fuscous, the basal area suffused with vinous purple, the rest with dark green, indistinct waved black ante- and postmedial lines, the latter excurved beyond cell, some ochreous streaks on the veins at end of cell, a dark brown diffused subapical spot and small ochreous streak above centre of margin. Hind wing black with the subbasal area pure white, the cilia greenish

Hab Mergui (Doherty) Exp 42 millim Type in coll Druce

SECT II Antennæ of male fasciculated

2466 Catephia perdicipennis, *Moore, Lep Atk* p 162, pl 5, fig 18, C & S no 2356

d Head and thorax pale purplish fuscous variegated with olivegreen, abdomen fuscous, with the dorsal tuits olive. Fore wing
pale purplish tuscous, the costa olive, a short subbasal line with
rufous spot inside it, a waved antemedial double line filled in with
olive, and with a black striga inside it at inner margin, the oibicular, remiform, and claviform pinkish with dark and olive outlines,
a double postmedial black line filled in with olive, very highly
excurved beyond cell, and with a black streak from it to centre of
outer margin, some slight subapical dentate marks. Hind wing
with the base white, the outer half fuscous, underside with cellspot and crenulate postmedial line

Hab Sikhim Exp 32 millim.

SECT III Antennæ of male bipectinate, the branches very short

2467 Catephia inquieta, Wik Cat x, p 340 Anophia mosara, Swinh P Z S 1889, p 413

Fuscous black slightly tinged with red-brown Fore wing with the subbasal, antemedial, postmedial, and submarginal lines indistinct, the orbicular, reniform, and claviform indistinct, the reniform large and pale in parts, a pale fascia on vein 2 from the cell to postmedial line Hind wing white, the outer half fuscous, or with slight suffusion on outer area and dark marginal line

Hab S Africa, Sind, Alibág, near Bombay, Ceylon Evp 32 millim

SECT IV (Zarıma) Antennæ of male bipectinate, the branches long

- 2468. Catephia dentifera, Moore, Lep Ath p 162, pl 5, fig 19, C & S no 2357
- d Head olive and rufous, thorax rufous, with olive patch on patagra, abdomen fuscous, the base and anal tuft rufous. Fore wing dark red-brown, an olive fascia on inner area, the base variegated with olive, the subbasal, antemedial, and curved post

medial lines indistinct, the last with some olive beyond it, an indistinct pale submarginal line, a marginal series of black specks, cilia olive with brown tips. Hind wing with the base white, the outer area fuscous brown, the cilia pale with a dark line through them, underside with cell-spot and crenulate postmedial line.

Hab Sikhim Exp 36 millim

Genus MOSARA.

Mosara, Wlh Cat v, p 1032 (1855)

Type, M apicalis, Wlk

Range Western India, Ceylon, and Burma, Borneo

Palpi upturned, reaching above vertex of head, antennæ bipectinated, thorax hairy, abdomen with slight dorsal tufts, the
male with large lateral and anal tufts, tibiæ without spines and
strongly tufted Fore wing short and broad, the apex rounded,
the inner margin lobed near base, and with a slight tooth of scales
at outer angle Hind wing of male with a ridge and fold on
underside running from centre of costa to lower angle of cell and
thence to centre of outer margin

2469 Mosara apicalis, Wil. Cat v, p 1032, Moore, Lep Ceyl III, pl 159, figs 3, 3 a, C & S no 2351
Anophia lateralis, Wil. Cat xxxIII, p 917

Head and thorax dark red-brown, abdomen pale, with the lateral and anal tufts fulvous. Fore wing dark red-brown, a



Fig 271 —Mosara apicalis, &

chocolate spot at base, an indistinct curved antemedial line, the reniform indistinct, with a white speck on it, a curved submarginal pale line, with an indistinct crenulate line inside it, some subapical dark spots, and one at centre of outer margin. Hind wing with the basal halt pale, the outer fuscous

Hab Poona, Nilgiris, Ceylon, Moulmein, Rangoon, Borneo

Evp, σ 28, Ω 32 millim

Genus ARCTE

Arcte, Koll Hugel's Kaschmir, 1v, p 477 (1844) Cocytodes, Guen Noct 111, p 41 (1852)

Type, A polygrapha, Koll
Range W Indies, Africa, the Oriental region to the New
Hebrides and Fin

Palpi upturned and reaching vertex of head, the 3rd joint short. antennæ quite simple, thorax and abdomen clothed with long hair, the latter in male with a strongly ridged chitinous rasp on centre of dorsum of penultimate segment, probably played on by the strong chitinous spurs of the hind legs, tibiæ fringed with long hair

SECT I Mid and hind tibiæ spined, hind wing of male with the inner margin fringed with long hair

2470 Arcte cærulea, Guen Noct 111, p 41, pl 13, fig 10, C & S. no 2342, Hmpsn Ill Het 1x, pl 176, fig 5 (larva)

Head black, thorax vinous red-brown, pectus white, abdomen bluish fuscous, with a white tuft in male below the claspers

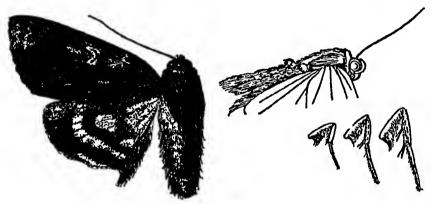


Fig 272 — Arote cærulea, &

Fore wing brown suffused with black, except the costal area as far as the postmedial line and the apical area, and irrorated with a few bluish-white scales, a short almost basal line, two black subbasal patches, an oblique waved antemedial line, a black spot in cell and two lunules at end of it, a lunulate postmedial line angled beyond lower end of cell, traces of a pale waved submarginal line. Hind wing black, with a bright blue patch on disk, a maculate postmedial band and patch near anal angle

Larva black, the somites with transverse dorsal white bars each enclosing a black line, stigmata ochreous, black-ringed, and with some red round them, situated on white patches, from near the top of each of which springs a white hair, an interspiracular disconnected white line, a broader spiracular line with a black spot, from which springs a white hair below each spiracle, a broad ventral white band, the 11th somite humped and black above, the extremity orange above spotted with black, head and somites with sparse long white hairs

Hab. Japan, throughout India, Ceylon, and Burma, Java, New Hebrides, New Caledonia, Fiji Exp 84 millim

SEOT II Mid and hind tibue not spined, male with the inner margin of hind wing not fringed with long hair

2471 Arcte polygrapha, Koll Hugel's Kaschmir, 1v, p 478

Differs from cærulea in the thorax being clothed with redbrown pale-tipped hairs, abdomen greyish, with black rings Fore wing with patches of white scales on the subbasal patches and in cell, the antemedial line curved, no black spot in cell, the postmedial line double and exceedingly sinuous, a series of black submarginal patches, a marginal black line

Hab Simla, Kashmir, Sikhim Exp 92 millim

2472. Arcte taprobana, Moore, Lep Ceyl 111, p 113, pl 160, fig 1, C & S no 2346

Arcte nigrescens, Butl Ill Het v1, p 38, pl 110, fig 8, C & S no 2345

Differs from cærulea in the antemedial line of fore wing being waved, the postmedial line regularly curved, a marginal series of black and fulvous specks. Hind wing with an obscure double postmedial series of small blue spots developed only towards inner margin, and a more developed submarginal series replacing the bright blue markings.

In the form taprobana from Ceylon, the ground-colour of fore wing is yellow-brown slightly suffused with fuscous; in nigrescens

from Sikhim it is wholly dark except the apical area Hab Sikhim, Ceylon Exp 80-84 millim.

2473 Arcte modesta, Van der Hoev Tyd Nat Gesch vii, p 282, pl 7, fig 8, C & S no 2344
Arcte senica, Feld Reis Nov pl 113, fig 2
Cocytodes immódesta, Guen Noct iii, p 42
Cocytodes granulata, Guen Noct iii, p 42, C & S no 2343

Differs from taprobana in the basal black patch of fore wing being larger, the antemedial line regularly curved, the postmedial line angled beyond the cell. Hind wing with single postmedial series of blue spots and indistinct marginal series. Underside with the margin of both wings suffused with pale blue, hind wing with two medial series of pale blue blotches.

Hab Sikhim, Assam, Java Exp 86 millim

Genus CYCLODES.

Cyclodes, Guen Noct 111, p 28 (1852) Beregra, Will Cat xiv, p 1315 (1858)

Type, C omma, Van der Hoev

Range Sikhim, Assam, S India, Ceylon Java

Palpi smoothly scaled, the 2nd joint reaching vertex of head, the 3rd minute, antennæ quite simple, thorax hairy, abdomen with strong ridges of coarse hair, tibiæ slightly hairy and without

spines Fore wing with the apex nearly rectangular, the outer margin obliquely rounded Hind wing with vein 5 from above angle of cell

2474 Cyclodes omma, Van der Hoev Tyd Nat Gesch vii, p 281, pl 7, figs a, b, Moore, Lep Ceyl in, pl 160, fig 7, C & S no 2573 Beregra replenens, Wlk Cat viv, p 1315

Head, thorax, and abdomen clothed with pale red-brown and grey hair Fore wing pale golden brown with green reflexions, the outer area whitish, the apical area irrorated with purplish.

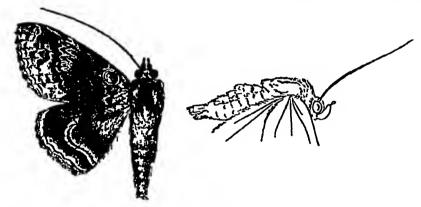


Fig 273 - Cyclodes omma, &

a metallic-blue ring-spot below costa embraced by the double sinuous antemedial line, indistinct sinuous medial, postmedial, and submarginal lines, the first angled at lower end of cell, the second dentate from costa to vein 3, an almost marginal series of dark stries. Hind wing greyish fuscous, a curved postmedial white band with a dark line on it, some blue marks with a whitish band beyond them towards anal angle, the apical area blackish, a marginal whitish band defined by brown lines. Underside with an indistinct lumulate postmedial pale line and traces of submarginal line, blackish towards costa of each wing

Hab Sikhim, Assam, Travancore, Ceylon, Java Exp 60-

72 millim

Genus MITHILA

Mithila, Moore, Lep Ath p 156 (1882)

Type, M hchenosa, Moore

Range Sikhim

Palpi upturned, the 2nd joint reaching vertex of head and thickly scaled, the 3rd of moderate length, antennæ ciliated in male, thorax with a slight tuft behind collar and paired tufts on metathorax, abdomen with dorsal tufts on first three segments,

that on third largest, legs very heavily clothed with hair Fore wing with the apex rounded Hind wing with vein 5 from below centre of discocellulars

2475 Mithila lichenosa, Moore, Lep Ath p 157, C & S no 2262

Olive-green, irrorated with grey scales Fore wing with indistinct double waved subbasal, antemedial, and postmedial black

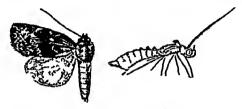


Fig 274 -Mithila lichenosa, & }

lines, and single medial and submarginal lines, a grey spot in end of cell and patch at apex, a maiginal series of black specks Hind wing dark brown, the cilia red-brown, underside with cell-spot and oblique postmedial line

Hab Sikhim Evp 42 millim.

Genus COARICA

Coarica, Moore, Lep Ath p 153 (1882)

Type, C fasciata, Moore Range Himalayas

Palpi upturned, slender, and smoothly scaled, the 2nd joint reaching just above vertex of head, the 3rd of moderate length, a sharp frontal tuft, antennæ simple, thorax with a very high sharp crest, abdomen with large dorsal tufts of spatulate scales on the 2nd and 3rd segments. Fore wing with the apex slightly acute. Hind wing with vein 5 from below centre of discocellulars.

2476 Coarica fasciata, Moore, Lep Ath p 153, pl 5, fig 1, C & S no 2247

9 Head grey and brown, thorax and abdomen pale red-brown,



Fig 275 —Coarica fasciata, 🔾 🖠

the collar outlined with grey Fore wing pale red-brown, with oblique antemedial black line from median nervure to inner

margin; a white speck in cell, a postmedial broad chocolate band. ill-defined on inner side, outwardly edged by a fine white line excurved beyond cell, and sending long teeth inwards on median nervure and vein 1, a broken submarginal sinuous black line Hind wing pale fuscous, with slight black marks near anal angle

Hab Murree; Sikhim Exp. 40 millim

Genus SPHINGOMORPHA

Sphingomorpha, Guen Noct 111, p 220 (1852)

Type, S chlorea, Cram

Range Africa, Aden, throughout the Indian region, Java Palpi upturned, the 2nd joint reaching vertex of head, smoothly scaled and somewhat thickened, the 3rd long and very slender, antennæ of male with slight fasciculated cilia on underside, thorax and abdomen smoothly scaled, the tibiæ fringed with hair, the fore tibiæ clothed with tufts of immensely long hair in male Fore wing long and narrow, the costa arched before the apex, the outer margin obliquely rounded, with the cilia crenulate Hind wing with the outer margin excised from vein 2 to anal angle

2477. Sphingomorpha chlorea, Cram Pap Exot 11, pl 104, fig C, C & S no 2593 Sphingomorpha sipyla, Guen Noct 111, p 222, pl 21, fig 4 Sphingomorpha monteironis, Butl A M N H (4) xvi, p 406

Head ochreous white, the basal joint of palpi dark brown, thorax dark brown above with a broad ochreous-white stripe on vertex,

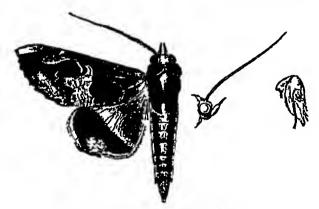


Fig 276 — Sphingomorpha chlorea, S

abdomen_dark brown above, with a series of dorsal ochreous-white Fore wing red-brown with dark striæ; a pale patch at base of inner margin, an indistinct antemedial angulate line, an irregularly waved medial line with pale outer edge, and sometimes tinged with purple and rufous, some vinous patches beyond it;

the reniform a narrow lunule with a vinous dash beyond it, a crenulate postmedial line with three medial black lunules on it and one towards inner margin, and joined by a crenulate line from near apex, a marginal series of black specks. Hind wing fuscous brown, the base and a diffused medial irregular band pale, an ochreous patch with black strike on it at centre of outer margin, the cilia pale. Underside pale, with fuscous submarginal band towards inner margin of each wing

Hab Africa, Aden, throughout India, Ceylon, and Burma

 E_{1p} 60–84 millim

Genus LACERA

Lacera, Guen Noct 111, p 336 (1852)

Type, L alope, Cram

Range Neotropical, Ethiopian, and Oriental regions, Japan Palpi with the 2nd joint reaching vertex of head, the 3rd short, antennæ of male minutely ciliated, thorax and abdomen clothed with coarse hair, tibiæ very heavily tufted with hair. Fore wing with the apex arched and somewhat acute, the outer margin angled at centre, the cilia crenulate. Hind wing with the cilia crenulate, the margin produced to slight points at veins 4 and 6

Larvæ with four pairs of abdominal prolegs, the first two pairs

aborted

2478 Lacera alope, Cram Pap Evot un, pl 286, E, F, Moore, Lep
Ceyl un, pl 173, figs 1, 1 a (larva), C & S no 2756
Lacera capella, Guen Noct un, p 337
Lacera procellosa, Butl A M N H (5) 1v, p 368

Dark reddish brown slightly irrorated with grey Fore wing with traces of subbasal line, a curved slightly dentate antemedial black

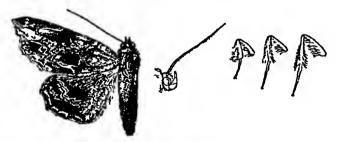


Fig 277 —Lacera alope, & }

hne, an obscure reniform spot with an indistinct figure-of-8-shaped mark below it, a very irregularly dentate postmedial line excurved beyond the cell, a pale mark with black streaks on the veins in the sinus and a pale mark on it above inner margin, the outer area variegated with pale brown and fuscous. Hind wing with indistinct waved postmedial line, a marginal dark line with some blue-grey specks on it. Underside with the outer area of fore

wing variegated with rufous and purplish, some white on the postmedial line, the outer margin suffused with white except at apex, hind wing variegated with reds and purples, a brown-speckled yellow patch at apex

Larva green, with dark dorsal striæ, the hinder part of somites 4-11 with dark specks and a sublateral series of similar specks, the legs and two dorsal prominences on 11th segment dark

Food-plants, Pisonia and Canthium

Hab S Africa, Madagascar, Japan, China, throughout India, Ceylon, and Burma, Andamans Exp 48-64 millim

Genus BRANA

Brana, Wlk Cat x111, p 1099 (1857)

Type B calopasa, Wlk

Range Ceylon, New Guinea

Palpi with the 2nd joint not reaching vertex of head, the 3rd naked and porrect, antennæ almost simple, thorax and abdomen smoothly scaled, the without spines and moderately barry. Fore wing with the apex somewhat rounded. Hind wing rather narrow, vein 5 from above lower angle of cell

2479 Brana calopasa, Wlk Cat xm, p 1100, Moore, Lep Ceyl m, pl 148, fig 6, C & S no 2385

Head black and white thorax grey, the scales tapped with white, collar with some black at base and behind it, abdomen



Fig 278—Brana calopasa, 3 1

black, with an orange dorsal spot at base and the extremity orange, pectus orange, legs black and white. Fore wing with the basal half grey, the scales tipped with white, two black spots on a white patch at base of costa, an antemedial series of three white or yellow-ringed black spots, five medial spots, one being displaced outwards below the white-edged black reniform, a post-medial maculate band with some white beyond it, the outer area bluish black, the veins white, an indistinct submarginal white line. Hind wing blue-black, the apex and cilia white

Hab Ceylon, New Guinea Exp 58-60 millim

Genus CHRYSOPERA, nov.

Type, C combinans, Wlk

Range Throughout India, Ceylon, and Burma

Palpi upturned and smoothly scaled, the 2nd joint reaching vertex of head, the 3rd long and slightly curved, antennæ serrate and fasciculated in male, thorax and abdomen smoothly scaled, tibiæ without spines, and not clothed with long hair. Fore wing with the apex somewhat rounded

2480 Chrysopera combinans, Will Cat xiv, p 1399, Moore, Lep Ceyl iii, pl 169, fig 3, C & S no 2623



Fig 279 Chrysopera combinans, d Very dark red-brown Fore wing with a slight purplish gloss, indistinct antemedial, medial, and post-medial diffused lines, a pale apical semicircular patch with a piece cut out of its outer edge Hind wing with a large bright yellow apical patch

Hab NW Himalayas, peninsular India, Ceylon, and Burma

Exp 44 millim

Genus OPHIUSA.

Ascalapha, Hubn Tentamen, p 2 (1806), præocc Thyas, Hubn Samml Exot Schmett 11 (? 1806)
Ophiusa, Ochs Eur Schmett 1v, p 93 (1816)
Achæa, Hubn Verz p 269 (1818)
Dysgonia, Hubn Verz p 269
Ophiodes, Guen Ann Soc Ent Fr p 77 (1841), præocc Ophisma, Guen Noct 111, p 254
Artena, Will Cat xiv, p 1888 (1858)
Pasipeda, Moore, Lep Ath p 171 (1882)
Minucia, Moore, Lep Ceyl 111, p 169
Caranilla, Moore, Lep Ceyl 111, p 169
Pindara, Moore, Lep Ceyl 111, p 169

Type, O algıra, Gmel

Range Palæarctic, Neotropical, Ethiopian, Oriental, and Austral-

asian regions

Palpi upturned and smoothly scaled, the 2nd joint reaching vertex of head, the 3rd variable in length and longer in the female than the male, thorax and abdomen smoothly scaled, mid tibize spined, and sometimes also the hind tibize the tibize fringed with long hair in male. Fore wing with the apex somewhat acute, the outer margin nearly straight. Hind wing with the outer margin slightly angled at vein 2

Larvæ with four pairs of abdominal prolegs, the first pair or first

two pairs rudimentary

494 NOCTUIDÆ

SECT I Males without large tufts on the legs

A Hind wing not orange or crimson

2481 Ophiusa gravata, Guen Noct 111, p 237, C & S no 2616

Pale reddish brown Fore wing with an indistinct straight erect medial pale line with dark inner edge, a slightly curved dark postmedial line and very obscure submarginal line, the cilia white at tips Hind wing brownish ochreous, with a submarginal fuscous black band very wide near apex Underside of fore wing with submarginal fuscous patch

Hab Sikhim, Sylhet, Burma, Ceylon, Australia Exp 60

mıllım

2482 Ophiusa mezentia, Cram Pap Erot iv, pl 323, F, C & S no 2625

Achæa reversa, Wik Cat xiv, p 1399, Moore, Lep Ceyl 111, pl 169, figs 2, 2 a (larva), C & S no 2627
Sypna lugens, Wik Cat xxx111, p 938

Dark brown, head and thorax irrorated with grey, the abdomen blackish. Fore wing uniformly coloured and irrorated with grey in the form reversa, in mezentia with indistinct subbasal, antemedial, medial, double postmedial, and submarginal waved lines slightly outlined with grey or ochreous, a broad medial grey or ochreous band with the reniform spot on it, an ill-defined semi-circular apical grey or ochreous patch. Hind wing black, slightly shot with blue and with a large apical white patch. Underside of fore wing with a broad postmedial white band not reaching the costa.

Larva Olive-grey with numerous longitudinal lines, a paler lateral band, underside pinkish, the anal somite with two dorsal yellow tubercles, head yellowish with black lines Food-plant, Canthium

Hab Madras, Ceylon Evp 58-64 millim

2483 Ophiusa melicerte, Diury, Ill Exot In. 1, p 46, pl 23, fig 1, Moore, Lep Ceyl 111, pl 168, figs 2, 2 a, b (larva), C & S no 2624

Noctua tigrina, Fabi Spec Ins p 218 Achæa catella, Guen Noct 111, p 247

Catocala traversu, Fereday, Trans N Z Inst 1x, p 457, pl 17

Pale reddish brown Fore wing with the markings usually prominent, but sometimes almost obsolete, a short subbasal waved line, obliquely waved antemedial and excised postmedial lines, often with black suffusion inside them, a speck at end of cell, a diffused rufous band beyond the postmedial line. Hind wing black, with medial white band, three large white spots on outer margin, the cilia whitish. Underside suffused with grev, fore wing with an oblique white postmedial band not leaching the costa, two crenulate medial lines on each wing

OPHIUSA 495

Lawa blush grey speckled with blue-black, lateral and sublateral yellowish bands with intervening blue-grey line, a dorsal black stripe bordered by reddish-white spots between 4th and 5th somites, a pair of dorsal red tubercles on anal somite, spiracles and fore legs red, the head black-striped

Hab Ethiopian, Oriental, and Australasian regions Eup 60-

70 millim

2484 Ophiusa serva, Fabi Syst Ent p 593, Moore, Lep Ceyl III, pl 169, figs 4, 4 a, b, C & S no 2628
Noctua vulpina, Fabi Ent Syst III, 2, p 39
Noctua mercatoria, Fabr Ent Syst III, p 62
Achæa Ino, Hubn Verz p 269
Achæa fasciculpes, Wilk Cat xiv, p 1400
Achæa nubifera, Moore, P Z S 1877, p 609, pl 59, fig 9, C & S no 2626

Differs from *melicerte* in being usually more uniform pale brick-red, with the markings of the fore wing indistinct, the antemedial, medial, and postmedial lines are waved and often double Hind wing with the medial band less prominent, the marginal spots smaller, that at anal angle obsolescent

The form fasciculipes is large and dark

Hab Peninsular India, Ceylon, Burma, Borneo, Java, Celebes, New Hebrides, Australia Evp 50-76 millim

2485 Ophiusa illibata, Fabr Syst Ent p 592, C & S no 2622 Hemeroblemma peropaca, Hubn Zuti in, p 33, figs 541, 542 Ophisma lætabilis, Guen Noct in, p 241 Ophisma contenta, Wik Cat xiv, p 1381, C & S no 2614

Pale rufous Fore wing with short subbasal and oblique antemedial dark lines on pale reddish bands, the reniform large with a dark line in it, three indistinct waved postmedial lines on pale reddish suffusion and one submarginal line, a large semicircular patch with white edges at apex Abdomen and hind wing fuscous brown, the latter with indistinct pale medial line, the margin grey except at apex

Hab China, throughout India, Ceylon, and Burma Evp

72 millim

2486 Ophiusa circumsignata, Guen Noct 111, p 255, C & S no 2634

Pale ochreous brown Fore wing with waved subbasal line, an antemedial line angled in the cell, traces of some whitish medial suffusion, a dark speck at end of cell, two curved and waved postmedial lines, an apical brown patch with ochreous edges, three specks on the costa and some whitish suffusion on it, the margin whitish with a series of marginal black specks. Hind wing with indistinct curved medial line and black spot at anal angle, the margin whitish with a series of black specks.

Hab Sylhet Eap 50 milhm

2487 Ophiusa palumba, Guen Noct III, p 211, Moore, Lep Ceyl III, pl 168, figs 1, 1 a, b (larva), C & S no 2641 Remigia colligens, With Cat xxxIII, p 1019

Brownish grey Fore wing slightly suffused with purple and irrorated with black, indistinct waved subbasal and antemedial lines, a small fuscous reniform spot, often obsolete, the postmedial line angled below costa, then indistinct and crenulate, with a series of black specks on the nervules, a slightly sinuous indistinct or prominent brown submarginal line, an almost marginal series of minute specks, some grey on cilia and margin Hind wing with indistinct antemedial line, some fuscous postmedial suffusion and a series of small white lunules with ferruginous suffusion beyond them towards inner margin, some grey on margin and cilia and fuscous marks towards anal angle

Lava with the 1st pair of abdominal prolegs aborted and two dorsal humps on anal somite, brownish ochreous above, olive beneath, some dorsal and lateral black-speckled streaks, a sub-

lateral whitish line with some pinkish spots above it

Hab Throughout India, Ceylon, and Burma, Singapore, Java Exp 38-52 millim

2488 Ophiusa rigidistria, Guen Noct in, p 240, C & S no 2619 Naxia calefaciens, Wlk Cat xiv, p 1405, Moore, Lep Ceyl in, pl 168, fig 3, C & S no 2633

Bronze-brown Fore wing with a white speck in the cell, an erect straight medial whitish band with a dark line on its outer edge, an indistinct dark waved submarginal line, a marginal series of black specks. Abdomen and hind wing dark fuscous, the latter with traces of medial and submarginal pale lines, a marginal series of black specks. Underside with two waved postmedial lines to each wing

Hab Sylhet, Rangoon, Ceylon Eup 56 millim

2489 Ophiusa certior, Will Cat air, p 1381, C & S no 2615

Differs from rigidistria in the antemedial line of the fore wing being more waved and oblique, no white speck in the cell or medial whitish band, a small reniform with dark outline, the straight line postmedial, and the dentate line beyond it arising from the apex. Hind wing with the medial whitish band more prominent, outer maigin and cilia of both wings brown. Underside uniform pale brown

Hab Moulmein Exp 70 millim

2490 Ophiusa dotata, Fabi Ent Syst in, 2, p 55, C. & S no 2596

Differs from certior in having the ante- and postmedial lines of fore wing very oblique, the former not waved, the latter very slightly, the remform broken up into two spots, a prominent marginal grey band with a waved line on it. Hind wing with

ophiusa 497

prominent medial incomplete white band, the maigin and cilia whitish. Underside with the basal area of both wings pale

Hab Throughout India, Cerlon, and Burma E_{1p} 72-82 millim

2491 Ophiusa submiia, Wik Cat xiv, p 1389 C & S no 2684

Differs from dotata in being much darker red-brown Fore wing with the costal and medial areas suffused with bluish white, the remform entire, the anter and postmedial lines dark, the latter excurved beyond the cell, the submarginal line farther from the margin, the area beyond it rufous with the marginal line more dentate. Abdomen and hind wing dark reddish fuscous, the latter without the white medial band, the cilia and underside ochreous

Hab Sylhet, Burma Travancore Erp 72 millim

2492 Ophiusa adusta, Moore, Lep Ath p 169, pl 6, fig 11, C & S no 2600

Minucia prunicolor, Moore, Lep Ceyl in, p 160, pl 167, fig 3, C & S no 2006

Head and thorax bright rutous, the shaft of antennæ whitish, abdomen brownish fuscous. Fore wing bright rutous, suffused with purplish as far as the postmedial line and beyond the submarginal, an outwardly oblique antemedial line, oned at inner margin by the obliquely waved postmedial line, the reniform with rufous outline, a double submarginal straight line and marginal dentate line. Hind wing brownish ochreous, the inner area clothed with fuscous hair, a broad diffused submarginal fuscous band. Underside brownish ochreous, fore wing with the cell and a submarginal patch fuscous

Hab Assam, Nilgiris, Ceylon Exp 66 millim

2493 Ophiusa cuprea, Moore, P Z S 1867, p 74, C & S no 2602

Head, thorax, and fore wing fuscous or brownish giev. Fore wing with indistinct short waved subbasal line an inwardly oblique, slightly sinuous, rufous antemedial line, the orbicular a speck, reniform with rufous edge, the postmedial line inwardly oblique and slightly curved, the submarginal line angled below the costa, the angle filled in with black, and with black above it a marginal dentate line and series of grey specks. Abdomen and hind wing brownish fuscous, the latter with the basal area palest, the cilia pale

Hab Formosa, NW and E Himalayas, Bengal, Cential

India Evp 60 millim

2494 Ophrusa indistincta, Moore, Lep Ath p 169, pl 6, fig 12, C & S no 2605 Ophrodes fervida, Butl P Z S 1883, p 164, C & S no 2604

Differs from cuprea in being redder, the fore wing more vol ii

irrorated with black, the ante- and postmedial lines indistinct, the latter with a dark mark at costa, the submarginal line angled outwards at vein 4 as well as 6, and with black inner edge throughout

 $Ha\bar{b}$ Simla Exp 50 millim

Ophiusa mejanesi, Guen Noct 111, p 232
Ophisma expedita, Wlh Cat 217, p 1375
Ophiusa tumidilinea, Wlh Cat 217, p 1433, C & S no 2611

Head and thorax reddish chocolate, shaft of antennæ white, abdomen fuscous. Fore wing reddish chocolate irrorated with dark specks, a short indistinct subbasal line, an outwardly oblique, slightly sinuous, ochreous antemedial line, the orbicular and reniform dark with ochreous edges, the former minute, an ochreous postmedial line excurved beyond the cell, then sinuous to inner margin, often with an indistinct series of fuscous spots beyond it, a submarginal line angled outwards at vein 6, then sinuous to inner margin in the typical form, straight in tumidilinea, the area beyond it purplish grey, often with black specks between the veins towards inner margin, a crenulate marginal line. Hind wing with the basal area whitish, more or less suffused with fuscous, the outer area fuscous black, cilia white, dark at centre. Underside with the basal area of both wings white with a cell-spot, the outer area fuscous

Hab W Africa, "N. India", throughout W and S India

Exp 54 millim

2496 Ophiusa absentimacula, Guen Noct 111, p 255, C & S no 2632

Pale red-brown Fore wing with a broad greyish medial band, with a straight dark line on its inner edge and a sinuous line on its outer, a slightly oblique and sinuous postmedial line, a submarginal series of pale specks and marginal series of dark specks Hind wing pale fuscous, a broad diffused submarginal band, very wide at apex

Hab Assam, Ceylon, Andamans, Java Exp 50 millim

2497 Ophiusa duplex, Moore, P Z S 1883, p 26, pl 6, fig 4, C & S no 2635

Differs from absentimacula in the medial line of the fore wing being straight, the postmedial line highly angled below costa and slightly waved

Hab Sikhim Exp 58 millim

2498 Ophiusa acuta, Moore, P Z S 1883, p 27, pl 6, ng 5, C & S no 2664

Differs from duplex in the postinedial line of fore wing not being waved

Hab Khásis Exp 62 millim

499

2499 Ophiusa maturescens, Will Cat xiv, p 1382, C & S no

OPHIUSA.

Dark red-blown Fore wing with an erect antemedial line with some violaceous suffusion beyond it, a postmedial line very highly angled at vein 6, where it is almost met by an oblique dark streak from the apex with indented edge and with the area beyond it paler, with traces of a dentate line on it, three ochreous specks on the costa before apex. Hind wing with the central part of outer area palei

Hab Sikhim, Sylhet Exp 52 millim

2500 Ophiusa arcuata, Moore, P Z S 1877, p 609, id Lep Ceyl iii, pl 171, fig 3, C & S no 2663

Differs from maturescens in having the autemedial line of the fore wing sinuous, a curved medial line beyond the violaceous band meeting the angled postmedial line at costa and inner margin, the outer edge of the oblique apical streak excised

Hab Throughout India, Ceylon, and Burma, Andamans, Java

Exp 48–54 millim

2501 Ophiusa maturata, WN Cat xiv, p 1382, C & S no 2617 Ophiusa falcata, Moore, Lep Ath p 171, pl 6, fig 14, C & S no 2668

Differs from maturescens in the basal area of fore wing being greyer, the outer edge of the violaceous suffusion defined by a straight line, the apical streak straight

Hab Khásis, Calcutta, Bombay, Nilgiris, Penang Exp

52 millim

2502 Ophiusa renalis, n sp

Differs from maturescens in the head, thorax, and fore wing being golden brown, the antemedial line more oblique a sinuous medial line interrupted by a large reniform spot, the postmedial line not quite so much angled, the apical streak straight

Hab Sikhim, Bombay Exp 48 millim Type in B M

2503 Ophiusa joviana, Cram Pap Evot iv, pl 399 B, Moore, Lep Ceyl iii, pl 170, figs 9, 9 a (larva), C & S no 2670 Noctua sinuata, Fabr Mant Ins ii, p 145 Ophiusa myops, Guen Noct iii, p 265

Differs from arcuata in the basal area of the fore wing being violaceous, the antemedial line curved, the postmedial line with a sinuation between the angle and inner margin and with some

specks beyond it instead of the dentate line

Larva with the first two pairs of abdominal prolegs rudimentary, bluish grey above, yellowish beneath and sparsely spotted with black, a larger sublateral spot on 4th somite two red dorsal tubercles on 11th somite, head grey, spotted with black Pupa with white efflorescence Food-plant, Phyllanthus

500 NOCTUIDÆ

Hab Throughout India, Ceylon, and Burma, Andamans, Java Exp = 50-54 millim

2504 Ophiusa simillima, Guen Noct 111, p 266, Moore, Lep Ceyl 111, pl 170, fig 8, C & S no 2674

Differs from noviana in the antemedial line being curved and with some dark suffusion inside it, some dark suffusion instead of the dark patch inside the postmedial line, which has two slight angles in it beyond the cell, the apical streak slight, an indistinct dentate submarginal line Hind wing with the cilia pale below the apex

Hab Sylhet, Ceylon Exp 42 millim

2505. Ophiusa algira, Linn Syst Nat 1, p 836

Noctua achatina, Sulz Abg Ges Ins p 160, pl 22, fig 4, C & S no 2658

Noctua stuposa, Fabr Ent Syst 111, 2, p 42, Moore, Lep Ceyl 111, pl 171, fig 7, C & S no 2675 Noctua triangularis, Hubn Sammil Eur Schmett, Noct pl 66,

fig 323

Ophiusa torrida, Guen Noct III, p 269

Ophiusa albivitta, Guen Noct ni, p 271, C & S no 2659 Ophiusa festina, Wik Cat xiv, p 1425

Ophiusa restina, Will Cat xiv, p 1426.
Ophiusa festinata, Will Cat xiv, p 1432
Ophiusa properata, Will Cat xiv, p 1432
Ophiusa properata, Will Cat xiv, p 1433, C & S no 2673
Ophiusa olympia, Swinh P Z S 1885, p 466, C & S no 2672
Disgonia latifascia, Warr P Z S 1888, p 316, C & S no

2670 A

Differs from ar cuata in the antemedial line of the fore wing being erect and having a broad, white, slightly suffused hand beyond it, which varies in width, the postmedial line angled also between

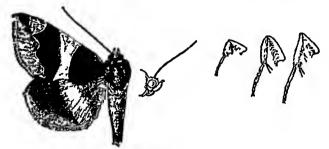


Fig 280 - Ophiusa algira, &

veins 3 and 4 and sinuous towards inner margin, the apical streak broken up into two spots Hind wing with a white medial band, the outer margin grey at centre

In the form properata the postmedial line is highly irregular, in

properans, from S Africa, the antemedial line is curved

The form stuposa has the medial band of the fore wing broad and outwardly diffused, the postmedial line usually with only a slight angle at vein 4, latifascia, from NW India, has the outer edge of the medial band defined by a curved line, the postmedial

OPHIUSA 501

line excurved into a quadrate form between veins 6 and 4 instead of having the two angles, and reaching the margin nearer the outer angle, so that the dark patch is very broad

Hab Europe, Africa, Mauritius, Japan, China, throughout

India, Ceylon, and Burma Exp 42-46 millim

2506 Ophiusa arctotænia, Guen Noct 111, p 272, C & S no 2662

Differs from algura in the postmedial line of the fore wing being prominently white from the costa to the angle at vein 6, the medial white band always well defined, narrow, and of almost even width throughout

Hab Throughout India, Ceylon, and Burma, Java Exp

52 millim

2507 Ophiusa mirabilis, Staud, Romanoff, Mem 11, p 78, pl 1v, fig 5 Ophiusa triangulata, Swinh P Z S 1889, p 414, pl 43, fig 5

Differs from arctotæma in being grey-brown, the postmedial line white throughout and produced to an angle near outer margin between veins 3 and 4, an indistinct submarginal white dentate line, the veins whitish beyond the postmedial line. Hind wing with traces of a dentate submarginal line towards anal angle

Hab Amur, Kaiáchi Erp 44 millim

2508 Ophiusa conficiens, Wlk Cat xiv, p 1432, Butl Ill Het vi, pl 112, fig 5, C & S no 2665

Black Fore wing with the medial white band tinged with ochreous, narrow, well-defined and oblique, the postmedial line white, angled close to outer margin on vein 6, then sinuous and excurved to near the margin from veins 4 to 2, the margin ochreous white, with a series of black specks. Hind wing fuscous black, with white medial band, the margin and cilia ochreous white, with a black spot and few blue scales near vein 2

Hab NW Himalayas, Bombay Exp 56 millim

2509 Ophiusa analis, Guen Noct 111, p 271, C & S no 2661

Differs from arctotanta in the white band of the fore wing being wider at the costa, the postmedial line more produced at vein 6, so that the white band on it is longer, the apical streak straight and diffused towards the costa. Hind wing with a black and white spot on outer margin at vein 2

Hab China, throughout India, Ceylon, and Burma, Java

Erp 50 millim

2510 Ophiusa crameri, Moore, Lep Ceyl III, p 177, pl 171, fig 2, C & S no 2666

Dysgonia discalis, Moore, Lep Ceyl III, p 177, pl 171, fig 8, C & S no 2667

Differs from analis in the postmedial line having the white band reduced to a line, and being slightly outlined with purplish grey from the angle to inner margin

The variety discalis has the whole of the dark patch between the white band and the postmedial line suffused with purplish white Hab Throughout India, Ceylon, and Burma, Andamans

63 millim

2511 Ophiusa amygdalis, Moore, Lep Ceyl III, p 551, pl 214, fig 3, C & S no 2660

Differs from maturescens (p 499) in being suffused with lilacine grey Fore wing with the antemedial line bent outwards below the cell, the apical streak with its outer edge indented, three white specks on the costa before apex

Hab Sikhim, Nilgiris, Tiavancore, Ceylon Exp 52 millim

2512 Ophiusa onelia, Guen Noct in, p 256, C & S no 2637,

Moore, Lep Ceyl in, pl 170, figs 1, 1 b (larva)

Naxia lageos, Guen Noct in, p 256 Ophiusa umbiosa, Wilk Cat xxxiii, p 968
Ophiusa luteipalpis, Wilk Cat xxxiii, p 968, C & S no 2671
Ophiusa obumbrata, Wilk Cat xxxiii, p 969

Dark grey-brown with a purplish tinge, the head and collar usually fulvous Fore wing suffused with brown, subbasal, anteand postmedial indistinct waved lines and antemedial and medial ill-defined grey bands, a grey apical patch with whitish edges, and a sinuous dark line from it to inner margin, an indistinct dentate submarginal line, the margin grey Hind wing with traces of medial and submarginal pale lines near inner margin, the outer margin grey

Larva with the 1st two pairs of abdominal prolegs rudimentary, grevish white above, olive-grev below, with black spots in somewhat linear series on each somite, a reddish lateral spot on 4th

Pupa efflorescent Food-plant, Phyllanthus somite

Hab China, throughout India, Ceylon, and Burma, Penang, Java Erp 44-46 millim

B The hind wing orange

2513 Ophiusa coronata, Fabr Syst Ent p 596, Moore, Lep Ceyl
iii, pl 167, fig 1, and pl 166, fig 5 (larva), C & S no 2595
Noctua leonina, Fabr tc p 596
Noctua anonina, Fabr Ent Syst iii, 2, p 17 Corycia magica, Hubn Zuti in, p 32, figs 535, 536

Head and thorax pale reddish brown, abdomen orange, the Fore wing irrorated with dark segments fringed with black specks, a short subbasal dark line, an outwardly-oblique, slightly sinuous, antemedial line, the orbicular small, round, and grey, the reniform large and chocolate, ringed with grey or broken up into grey or chocolate grey-ringed spots, a slightly inwardly-oblique postinedial line, a pale submarginal line, slightly bent below the Hind wing orange, with broad medial and submarginal fuscous black bands not reaching inner margin, the latter widest

503 OPHIUSA.

towards costa Underside orange, the costal and outer areas of both wings dark-speckled, and with a slight reddish suffusion, a

black patch near outer angle of fore wing

Larva dull sienna-brown longitudinally striped with blackbrown, a dorsal black spot on 8th somite, paired black dorsal tubercles on 10th and 11th somites, a lateral yellow-edged spot on 5th somite, underside dark, head striped with black Food plant, Quisqualis indica

Hab Throughout India, Ceylon, and Burma, Andamans, Java,

Australia E_{2p} 82–96 millim

2514 Ophiusa discriminans, Will Cat xiv, p 1358, Hmpsn Ill Het 1x, pl 165, fig 13, C & S no 2603

Head and thorax reddish orange, palpi grey, sides of head chestnut, abdomen orange, with a black dorsal patch near ex-Fore wing greenish orange, the outer third reddish, slightly irrorated with black, a faint outwardly-oblique, sinuous antemedial line, and inwardly-oblique crenulate postmedial line, the orbicular a dark speck, the remform grey with dark edge, two grey and black subapical spots, a series of grey submarginal specks and large grey patch at outer angle, the cilia grey wing orange, with broad submarginal fuscous-black band

Hab Ceylon Erp 65 millim

2515 Ophiusa indiscriminata, *Hmpsn Ill Het* ix, p 111, 1 176, fig 23 (larva) Minucia discriminans, Moore, Lep Ceyl in, pl 166, fig 4 (nec WIL)

Differs from discriminans in the head and thorax being yellowish grey, abdomen without the black patch. Fore wing yellowish grey without black specks, a maculate line beyond the postmedial line, a grey and dark patch beyond the subapical spots, and hardly a trace of the patch at anal angle, a dentate submarginal line with the area beyond it reddish Hind wing with the black reduced to a submarginal medial patch

Larva pale brown, with numerous waved longitudinal black lines, between which are series of black specks, some red between each pair of legs, and a black patch between each pair of prolegs.

small paired dorsal prominences on 11th somite

Hab Ceylon Erp 76 millim

2516 Ophiusa tirrhaca, Cram Pap Exot 11, pl 172, fig E Noctua vesta, Esp Schmett Eur 1v, pl 141, fig 1 Noctua ohvacea, Vill Ent Linn 11 p 270, pl 5, fig 9 Noctua auricularis, Hubn Samml Eur Schmett, Noct pl 66, fig 321 Ophiodes hottentota, Guen Noct 111, 229 Ophiodes separans, Wik Cat xiv, p 1357, C & S no 2608

Head and thorax greenish yellow, abdomen orange Fore wing greenish yellow, with slightly darker striæ, an indistinct outwardly-oblique antemedial line meeting a sinuous inwardlyoblique postmedial line arising from a dark spot on the costa at inner margin, the orbicular a dark speck, reniform brown, an irregularly dentate submarginal line, with two black subapical lunules on it, the area beyond it reddish, a crenulate marginal Hind wing orange, with broad submarginal black band not reaching costs or inner margin and sometimes almost obsolete

Hab Europe, S Africa, Madagascar, throughout India

Eap. 64-80 millim

C Hind wing crimson

2517 Ophiusa honesta, Hubn Samml Erot Schmett u, Inder, p 4, pl 203, figs 1, 2, C & S no 2598 Noctua miciorhæa (°), Fabi Ent Syst in, 2, p 17

Head and thorax reddish chestnut, the third joint of palpi black, abdomen crimson Fore wing reddish chestnut, slightly irrorated with dark scales, traces of a sinuous antemedial line with three white specks on it, reniform grey, the lower part more or less completely filled in with black, a curved postmedial series of white specks with an indistinct band beyond it angled at vein 6 and met by a dark streak from the apex, a marginal series of Hind wing crimson, with black submarginal medial specks patch

Hab Philippines, throughout India, Ceylon, and Burma, Andamans Exp 84-104 millim

SECT II Males with a cleft running the whole length of the mid tibia and containing a mass of flocculent scales

2518 Ophiusa fulvotænia, Guen Noct 111, p 272, Moore, Lep Ceyl m, pl 171, tg 1, C & S no 2669

Differs from cramer (p. 501) in being red-brown Fore wing with the medial band suffused with purplish, the postmedial line dark throughout, and with an indistinct dentate line beyond it wing with a medial orange band, wide towards the costa

Hab Japan, China, Formosa, throughout India, Ceylon, and

Burma, Sumatra, Java Exp 70-80 millim

SECT III Male with a large tuft of bair on fore femora

2519 Ophiusa trapezium, Guen Noct iii, p 231, C & S no 2609 Ophisma cognata, Wik Cat xxxiii, p 958

Head and thorax pale rufous, abdomen pale fuscous, the femoral tufts black Fore wing greenish ochreous irrolated with dark scales, an outwardly-oblique antemedial dark line, a dark speck representing the orbicular, the remform rufous with dark centre and edge, an obliquely curved postmedial line, a double straight submarginal line, the area beyond it reddish suffused with purple with a dentate marginal line Hind wing whitish,

with the outer area fuscous. Underside whitish, the costal and outer areas of both wings blownish and dark-speckled, fore wing with a fuscous submarginal band.

Hab Assam, Nilgiris, Travancore, Ceylon Erp 66 millim

2520 Ophiusa triphænoides, W/L Cat xiv, p 1358, C & S no 2610

Head and thorax grey, palpi dark, abdomen fuscous Fore wing violaceous grey irrorated with dark scales, the costa ochreous, an antemedial, outwardly-oblique, slightly curved, pale and rufous line, the orbicular a black speck, remiform brown with dark outline, a postmedial, pale and rufous, inwardly-oblique, slightly sinuous line, a submarginal sinuous line angled outwards at vein 6, the angle filled in with black and with black above it Hind wing with the basal area brownish ochreous, the outer area fuscous black, cilia white towards apex. Underside with the basal area ochreous white, the outer fuscous

Hab Formosa, NW and E Humalayas, Bengal, W and S India Exp 60 millim

Genus LAGOPTERA

Lagoptera, Guen Noct 111, p 223 (1852)

Type, L juno, Dalm

Range W Africa, Japan, China, Himalayas, Nilgiris, Australia

Differs from Ophiusa in the abdomen being clothed with coarse hau on the back and sides, the lateral tuits in the male being large, mid and hind tible spined. Fore wing narrower, with the costa more arched near base, then nearly straight to apex, in the male slightly excised, the apex more produced, and outer margin more oblique. Hind wing of male with very long radiating hair on inner margin, vein 1 a fringed with hair below

2521 Lagoptera juno, Dalm Anal Entom p 52
 Ophideres elegans, Van der Hoev Tyd Nat Gesch vii, p 280, pl 5, figs 6, a, b, C & S no 2597
 Lagoptera multicolor, Guen Noct 111, p 226

Head and thorax chestnut or grey-brown, abdomen crimson with lateral white specks, the dorsum grey-brown except the terminal segment. Fore wing chestnut, grev-brown, or ochreous brown, a short subbasal rutous line, an antemedial, slightly sinuous, outwardly-oblique line, the orbicular a speck, remitorm with indistinct outline, and often with black spots in both upper and lower portions, an outwardly-oblique, slightly sinuous, postmedial rufous line, a curved line from apex to outer angle, the inner margin rufous. Hind wing with the basal area black, with bluish-white ill-defined medial band not reaching costa or inner margin, the outer area crimson, with a patch of black specks at

centre Underside crimson, the apical areas black-speckled. fore wing with cell-spot and submarginal medial black patch

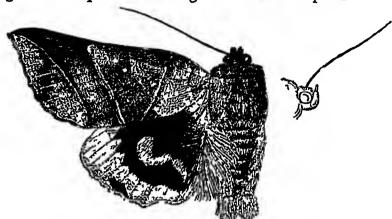


Fig 281 -Lagoptera juno, & }

Hab Japan, China, throughout the Himalayas, Nilgiris. Exp 90-100 millim

Genus ISOURA, nov.

Type, I fuscicollis, Butl Range NW Himalayas

Differs from Ophiusa in the abdomen being flattened, the fore wing of almost even width throughout, tibiæ of male very hairy, without spines

2522 Isoura fuscicollis, Butl Ill Het vii, p '56, pl 127, fig 4

Head, collar, and fore legs dark chocolate, thorax reddish grey, abdomen dull yellow, reddish brown at extremity Fore wing

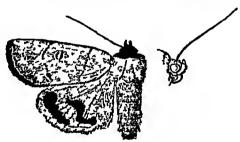


Fig 282 — Isoura fuscicollis, & }

reddish grey, sometimes irrorated with a few black scales, an oblique, slightly waved, indistinct antemedial line, and slightly curved postmedial line with a black spot on it towards inner margin, a marginal series of minute specks, cilia red-brown. Hind wing bright yellow, with a doubly-curved postmedial black band from vein 7 to anal angle, a marginal band from apex to vein 2

Underside with complete postmedial band to both wings, hind wing with a cell-spot

Evp 52 millim. Hab Dharmsála

Genus HYPÆTRA

Hypætra, Guen Noct 111, p 259 (1852) Avatha, Wlh Cat xiii, p 1105 (1857) Pseudathyrma, Butl Ann N H 1892, p 299.

Type, H noctuoides, Guen

Range Khásis, Sylhet, Nilgiris, Ceylon, Burma, Andamans, Sumatra, Java, Borneo, Society Islands

Palpi upturned and met by a sharp frontal tuft, the 2nd joint reaching vertex of head and roughly scaled, the 3rd long and obliquely porrect, antennæ usually minutely ciliated; thorax and abdomen smoothly scaled, the fore tibiæ fringed with long hair in male, the mid tibiæ spined Fore wing with the apex somewhat rounded

SECT I (Hypætia) Males with the subcostal neuration of fore wing not distorted, and without sexual patches on fore and hind wing

A Antennæ of male minutely ciliated

2523 Hypætra noctuoides, Guen Noct 111, p 259, C & S no 2646

Pale red-brown, palpi black at sides Fore wing with very indistinct subbasal, antemedial, medial, postmedial, and submarginal waved lines, the 1st, 2nd, and 4th arising from blackish patches on the costa, the antemedial line with a large pale-edged black lunule on it below the cell, the postmedial with a double curve beyond the cell, the lower including a grey patch

Hab Sylhet, Burma, Java Exp 46 millim.

2524 Hypætra includens, Wik Cat xiii, p 1107, C & S no 2654, Moore, Lep Ceyl in, pl 170, fig 6
Hypætra trigonifeia, Wil. Cat xiv, p 1411, C & S no 2655
Hypætra complacens, Wil. Cat xiv, p 1414

Differs from notwordes in the fore wing being greyer and more suffused with fuscous, the spots on the costa absent, the lunule on the antemedial line sometimes obsolescent, a dark spot in the cell, the postmedial line S-shaped beyond the cell with a blackish patch in its upper curve Hind wing with the cilia whitish at apex and near anal angle

Hab Nilgiris, Ceylon, Java, Society Islands Exp 40-46 millim

2525 Hypætra curvifera, Will Cat xiv, p 1412, Moore, Lep Ceyl m, pl 170, fig 4, C & S no 2650
Ophiusa frontalis, Wik Cat xiv, p 1434, C & S no 2653
Achea expectans, Wik Cat xv, p 1827, C & S no 2652

Differs from includens in being greyish, reddish, or very dark

brown, much irrorated with black. Fore wing with the lines almost or quite obsolete, the postmedial being most distinct, the black patches absent and only represented by a fuscous patch beyond the cell, sometimes conjoined to a triangular shade on the costa

Hab Nilgiris, Ceylon Exp 46 millim

2526 Hypætra bubo, Hubn Zutr 1v, p 13, figs 633, 634 Hypætra perficiens, Wlh Cat xiv, p 1412, C & S no 2647 Hypætra condita, Wlh Cat xiv, p 1413, C & S no 2649



Fig 283 —Hypætra bubo, &

Differs from noctuoides in the head, thorax, and fore wing being purplish grey. Fore wing with the medial and outer areas palest, the black lumiles on the antemedial and postmedial lines extremely large and produced at their angles, the lines more distinct and dentate, some pale specks on the costa. Hind wing

with a diffused pale streak near anal angle, the cilia pale at apex and anal angle, underside with a medial inaculate line

Hab Shillong, Nilgiris, Ceylon, Andamans Evp 56 millim

*2527 Hypætra? remigioides, Guen Noct 111, p 230, C & S 110 2607

Head and thorax fleshy grey, abdomen yellow, reddish below Fore wing grey, the costa and markings of costal area velvety brown, the antemedial line straight and oblique, with dark suffusion inside it, and with a pale-edged black patch inside it on inner margin, the postmedial line waved, straight near costa, remform large and indistinct, with a large bilobed patch below it, from which three waved lines run to inner margin, orbicular a small ring-spot, the submarginal line irregularly dentate, with a black speck on each nervule. Hind wing tulvous yellow, with an indistinct submarginal fuscous band with a line above it near inner margin.

Hab "Central India" Exp 55 millim

- B Antennæ of male with long branches on the outer sides, very short branches and long stiff bristles on the inner side, a tuft of hair on upperside of shaft near base
- 2528 Hypætra apicalis, Moore, P Z S 1879, p 405, pl 33, fig 7
 Sphetta moorer, Coles & Swinh Cat Moths Ind p 172, C & S
 no 1141

Head and collar whitish, palpi fuscous at sides, thorax purplish fuscous, abdomen fuscous

Fore wing purplish fuscous, with very

indistinct waved subbasal and antemedial lines, a white spot in cell, the reinform white, with an ill-defined whitish patch above it, some white specks on costa, the postmedial line arising near apex, slightly dentate and very obliquely curved to vein 2, then straight to inner margin. Hind wing fuscous

Hab Sikhim, Ceylon Eap 40 millim

SECT II (Pseudathyrma) Fore wing of male with the subcostal nervure curved downwards and enclosing a large patch of differently formed scales, the subcostal nervules distorted, hind wing with a patch of differently formed scales on the outer margin between veins 5 and 6

2529 Hypætra complens, Wil. Cat xiv, p 1415 Cropia glaucofascia, Wil. Cat xv, p 1804 Hypætra stigmata, Moore, P Z S 1877, p 610, C & S no 2648

To Dark and red-brown Fore wing with ill-defined subbasal, oblique ante- and postmedial, and waved submarginal lines, a diffused dark patch below the cell inside the antemedial line, some specimens with a medial ochreous band, the postmedial with a black irregular S-shaped mark beyond the cell, with a dark patch in its lower bend, a fuscous band beyond the postmedial line. Hind wing with a dark streak at anal angle, the cilia whitish at apex and anal angle, underside with cell-spot and medial series of spots Palpi white in front

2 redder

Hab Andamans, Sumatra Exp, 3 40, 2 44 millim

Genus ANEREUTHINA

Anereuthma, Hubn Zuti 11, 23, no 163 (1818)

Type, A renosa, Hubn, from Java Range Burma, Java

Differs from Hypatia in the tibiæ being more hairy in both

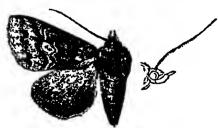


Fig 284 -Anereuthina lilach, of

sexes, the mid tibiæ not spined Hind wing with the anal angle somewhat truncate and the outer margin slightly angled at vein 2 Larvæ with four pairs of abdominal prolegs, the first rudimentary

2530. Anereuthina lilach, Guen Noct 111, p 260, C & S no 2645 Hypætra ocularia, Swinh Trans Ent Soc 1890, p 246, pl 8, fig 4

Deep red-brown, the palpi black at sides, the 3rd joint and fore tibiæ grey. Fore wing slightly irrorated with grey, especially the outer margin, indistinct subbasal, antemedial, medial, postmedial, and submarginal lines, the antemedial line with a pale green patch on it below the cell, the postmedial with two black specks at lower angle of cell enclosed in a large green occllus in female, only the lower one enclosed in male, the submarginal line with a series of black specks. Abdomen and hind wing dark fuscous, the latter irrorated with grey towards anal angle, the cilia red-brown Hab Bassein. Exp. 50 millim

2531 Anereuthina xanthoptera, n sp

Q Ochreous, palpi grey with the base black. Fore wing slightly irrorated with fuscous, a black speck in cell, slight fuscous marks representing the postmedial line beyond cell and above vein I, two waved series of submarginal fuscous spots and a series of grey marginal lunules. Hind wing with broad blackish marginal band decreasing in width to anal angle, and a grey marginal waved line, cilia brownish. Underside with diffused fuscous submarginal band to both wings

Hab. Toungagoo, Burma Exp 44 millim Type in coll Druce

Genus SERRODES

Seriodes, Guen Noct 111, p 251 (1852)

Type, S mara, Cram

Range Africa, throughout the Oriental region, Australia Differs from Ancreuthina in the costs of the fore wing being slightly arched before the apex, the cilia of fore and hind wings strongly crenulate, the tibiæ extremely hairy in both sexes, mid tibiæ of male with dense long hair lying along their inner sides

Larvæ with four pairs of abdominal prolegs, the first rudimentary

Serrodes mara, Cram Pap Exot m, pl 239, E, C & S no 2631
Serrodes campana, Guen Noct m, p 252, Moore, Lep Ceyl m,
pl 167, figs 5, 5a, C & S no 2630
Serrodes nigha, Guen Noct m, p 253
Ophiodes basisignum, Will Cat xiv, p 1359, C & S no 2601
Phoberia korana, Feld Reis Nov pl. 116, fig 3

Head, thorax, and fore wing dark or red or grey-brown Fore wing with a subbasal dark red-brown spot on the costa, with a line from its lower edge, a similar antemedial spot and large linule below the cell with a highly excurved line from its lower edge, the reniform broken up into a number of tesselated spots with pale edges, and with rutous marks on the costa above it, a double straight postmedial line, angled below the costa. Abdomen and hind wing fuscous, the latter with traces of a medial pale line; the cilia pale at apex and anal angle.

The form unara has the head, thorax, and fore wing pale lilaceous grey, with all the markings of the fore wing slight, campana has

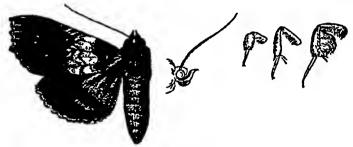


Fig 285 - Serrodes mara, &

the head, thorax and basal and outer areas of fore wing brown and the markings large, nigha is brown throughout

Hab Africa, throughout India, Ceylon, and Burma, Java, Borneo, Australia Evp 52-74 millim

Genus DORDURA

Dordura, Moore, Lep Ath p 170 (1882)

Type, D aliena, Wlk
Range Khásis, Travancore, Ceylon, Burma, Gilolo
Palpi with the 2nd joint reaching above vertex of head and roughly scaled, the 3rd of moderate length and porrect; antennæ minutely chiated in male, thorax and abdomen smoothly scaled, tibiæ without spines, fore and mid legs with long tufts of hair from the femore-tibial joint. Fore wing with the apex slightly produced and acute

2533 Dordura aliena, Wik Cat xxxiii, p 964, C & S no 2656 Dordura apicalis, Moore, Lep Ath p 170, pl 5, fig 20, C & S

Dysgonia tincts, Hmpsn Ill Het ix, p 112, pl 165, fig 3

& Reddish brown Fore wing with waved subbasal line, a double antemedial line, a dark spot in cell, a postmedial line angled



Fig 286 - Dordura aliena, &

outwards below costa, irregularly excurved beyond cell, then bent inwards to below the narrow remiform spot, and straight and double to inner margin, a subtriangular chocolate mark with pale edges on the costs before apex, traces of a submarginal pale waved line, a submarginal series of black specks. Hind wing with the apical area fuscous, medial and postmedial ill-defined, waved, dark lines, and submarginal series of black specks.

Some specimens have a medial ochreous band to fore wing

2 with the markings of fore wing much less distinct, the triangular patch almost obsolete.

Hab Khásis; Travancore; Ceylon; Rangoon; Gilolo. Exp 44

mıllım.

Genus DELGAMMA.

Delgamma, Moore, Lep Ceyl m, p 168 (1885)

Type, D pangonia, Guen

Range Sylhet, Ceylon; Andamans; Borneo.

Palpi upturned, the 2nd joint reaching vertex of head and smoothly scaled, the 3rd of moderate length; a short frontal tuft, antennæ fasciculate in male, thorax and abdomen smoothly scaled, tibiæ without spines and moderately hairy, hind tarsi with the first joint fringed above. Fore wing with the apex somewhat acute. Hind wing of male with the cell short and a large oval depression beyond it, veins 6 and 7 being bent and approaching vein 8, veins 4 and 5 depressed and running along 3 to near margin.

2534 Delgamma pangonia, Guen Noct 111, p 214
Delgamma calorifica, Wll. Cat xiv, p 1406, Moore, Lep Ceyl
ni, pl 168, figs 4, 4a, C & S no 2636

Bright rufous brown, palm and sides of frontal tuft black

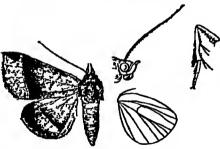


Fig 287 — Delgamma pangonia, 3

Fore wing with very indistinct subbasal and antemedial waved lines, a black speck at middle of cell and two at end of it, a nearly straight postmedial whitish line, the area beyond it bright purple, with a dentate submarginal line and one or two white-edged chocolate apical patches, a crenulate marginal line, the cha dark Hind wing with whitish post-

medial line, except on costal area, the area beyond it bright purple, with some black and white marks just beyond the line, a crenulate marginal line, the cilia dark

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Hab Sylhet, Ceylon, Andamans, Borneo. Exp, 3 42, 2 52

Genus SYMPIS

Sympis, Guen Noct 111, p 343 (1852)

Type, S rufibasis, Guen.
Range. Throughout India, Ceylon, and Burma, Java

Palpi upturned and smoothly scaled, the 2nd joint reaching above vertex of head, the 3rd long and slightly curved; antennæ ciliated in male, thorax and abdomen smoothly scaled; the tibiæ not spined, and clothed with short hair; the 1st joint of hind tarsi fringed with hair on the upperside. Fore wing with the apex somewhat produced and acute

2535 Sympis rufibasis, Guen Noct 111, p 344, pl 24, fig 1; C & S no 2761



Fig 288 — Sympus rufibasis, &

d. Head and thorax orangered, abdomen red-brown Fore wing with the basal area orange-red, bounded by an oblique blue line, the outer area red-brown, with a large scarlet lunule beyond the cell and a white speck on the costa above it, an indistinct, irregularly dentate, submar-

ginal line, a marginal series of specks. Hind wing fuscous, with incomplete medial white band and waved whitish marginal line Underside almost entirely suffused with grey; a crenulate postmedial line.

Q without the scarlet lunule on fore wing Hab Throughout India, Ceylon, and Burma, Sumatra, Java Exp 48 millim.

Genus BANIANA

Baniana, Wlh Cat xv, p 1843 (1858) Birtha, Wlh Cat xxxiii, p 976 (1865)

Type, B significans, Wlk, from the W Indies

Range W Indies, S America, Africa, Sikhim, Sylhel,

Peninsular India, Ceylon, Burma

Palpi usually reaching vertex of head, the 3rd joint minute, thorax and abdomen smoothly scaled. Fore wing with the apex slightly produced and falcate. Hind wing with vein 5 from above lower angle of cell.

SECT. I Fore wing with no tuft of scales on inner margin before middle Male with long bristles and cilia to the antennæ

A (Baniana) Mid tibiæ with tufts of long hair on inner side; palpi reaching vertex of head

2536 Baniana semilugens, Wik Cat xii, p 814, Hmpsn Ill Het viii, pl 143, fig 13, C & S no 1905
Baniana luteiceps, Wik Cat xxxii, p 1000

Head and collar fulvous, thorax and abdomen grey-brown.

Fore wing purplish grey, indistinct subbasal and antemedial waved lines, black specks at middle and end of cell, the latter with fuscous spot on costa above it, a sinuous postmedial ochreous line sharply recurved from vein 4 to centre of discocellulars and with black suffusion beyond it. Hind wing fuscous

Hab Nilgiris, Moulmein Exp 32 millim

*2537 Baniana ² conjugata, *Moore, P Z S* 1881, p 369, *C & S* no 1904

Head, thorax, and abdomen ochreous brown irrorated with brown. Fore wing dark umber-brown, the costa pale, with some dark strige from it, the orbicular elongate, dark with pale edges, and conjoined to the similar but erect remiform, a pale streak below the cell

Hab Sikhim Eap 28 millim

- B Palpi with the 2nd and 3rd joints longer, male with tufts of hair from fore coxe, mid legs with a long tuft from femorotibial joint, mid and hind tibice fringed with hair
- 2538 Baniana polyspila, Wlk Cat xxxiii, p 966, C & S no 2387 Athyrma tesselata, Moore, P Z S 1867, p 76, C & S no 2388
- 3 Pale reddish grey, the head and collar golden brown, the tufts on fore coxe black. Fore wing with jet-black pale-edged markings, a speck at base, a large irregular patch from below middle of cell to inner margin, with a speck inside it on the margin, the orbicular small, the remform large, a large irregular patch from below end of cell to vein 1, with a pale line across it and a

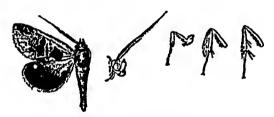


Fig 289 —Baniana polyspila, 3 1

spot below it on the margin at its inner side, its upper corner joined by a postmedial series of spots, a large subapical spot, and another between veins 3 and 5 with a speck above it, a mar-

ginal series of black specks Hind wing fuscous Q. Fore wing with the base of costa black, with ochreous outer edge, the cell and basal inner area to near end of cell black, a doubly-angled antemedial ochreous line from subcostal nervure to inner margin, a medial line highly angled in the cell, where it almost touches the antemedial line, and also below the cell, where it sends a branch outwards round the black area on inner margin,

515

the postmedial markings consist of a large ochreous-edged black spot below costs, with a black patch beyond it and some small spots between veins 2 and 5, with a larger patch beyond them, a marginal series of ochreous-edged lunules

Hab Sikhim, Sylhet, Burma Exp, 3 42, 2 50 millim

2539 Baniana divulsa, Will Cat xxxiii, pl 966, Hmpsn Ill Het ix, pl 163, fig 4, C & S no 2386

Fuscous brown, the head and collar banded with black Fore wing with a black speck at base, an antemedial dark line expanding into a large irregular black patch with pale edges below the cell, a pale-edged black spot in cell, a pale sinuous and angled line from near apex to vein 3, thence very sharply recurved to centre of discocellulars and slightly sinuous to inner margin, and with black and rufous suffusion beyond it, a postmedial series of black specks from the costa to the recurved line, traces of a submarginal line, some pale specks on costa towards apex. Hind wing dark fuscous

Hab Sylhet, Bombay, Travancore, Ceylon Exp 40 millim

SECT II Fore wing with a tuft of scales on inner margin before middle

A Antennæ of male with long bristles and cilia, mid tibiæ very short, swollen, and without spurs

2540 Baniana intorta Swinh Trans Ent Soc 1891, p 150, Hmpsn
Ill Het ix, pl 163, fig 3

Head and collar bright fulvous, thorax and abdomen pale grey Fore wing pale grey, with a large subtriangular deep chocolate patch with pale edges on inner area before the middle, ante- and postmedial rufous strigæ from costa, a dark speck at end of cell, a postmedial pale line sharply recurved to lower angle of cell, then straight to inner margin, the area beyond it suffused with deep chocolate, growing paler towards outer margin, traces of an irregular submarginal line Hind wing fuscous

Hab W Africa, Natal, Bombay, Ceylon Exp 28 millim

- B Antennæ of male with bristles and cilia, mid tibiæ normal 2541 Banjana lunifera, n sp
- d Purplish fuscous Fore wing with a large black antemedial lunule from cell to inner margin, its inner edge angled, its outer edge whitish, a pale-edged black spot in cell, the postmedial line sinuous from costa to vein 4, then recurved to upper angle of cell, thence curved to inner margin, pale with black suffusion beyond it in the curve and a black angled line beyond it from near costa to vein 4, a marginal series of white specks and streaks at outer

angle Hind wing fuscous, with blackish medial and submarginal diffused bands

Hab Ganjam Exp 34 millim Type in coll Elwes.

- C (Birtha) Antennæ of male bipectinated, mid tibiæ clothed with very long hair, fore wing with both ante- and postmedial tufts on inner margin
- 2542 Baniana insulata, Wik Cat xxxiii, p. 976, Hmpsn Ill Het ix, pl 163, fig 8, C & S no 2187

Head and collar bright fulvous, thorax and abdomen grey-brown Fore wing grey-brown with slight purplish suffusion, an antemedial fulvous band with pale edges, expanding into a large patch below the cell, the orbicular and reniform deep rufous with pale edges and a patch on costa above them, the former small, an indistinct postmedial line very sharply excurved from vein 3 to lower angle of cell, with a rufous patch on it at inner margin and some pale patches beyond it, a triangular rufous patch on costa before apex, with two white specks on the costa, a marginal series of dark specks. Hind wing greyish fuscous with dark marginal line, underside with cell-spot and postmedial line.

Hab Old Calabar, Ceylon Exp 36 millim.

Genus BORSIPPA.

Borsippa, Will Cat xv, p 1756 (1858) Aramuna, Moore, Lep Ceyl 111, p 35 (1885)

Type, B quadrilineata, Wlk

Range Congo, throughout India, Ceylon, and Burma, Borneo Palpi slender and reaching vertex of head, the 3rd joint minute, thorax and abdomen smoothly scaled, tibiæ fringed with hair Fore wing with the apex rounded Hind wing with vein 5 from lower angle of cell

- SECT I Male with the patagra very minute and with tufts of elongate scales from them, the anal tuft large
- A. (Borsippa) Male with the antennæ ciliated, no sexual patches on either wing
- 2543 Borsippa quadrilineata, Wik Cat xv, p 1756 Borsippa marginata, Moore, Lep Ath p 173, C & S no 2318

Reddish grey-brown Fore wing with oblique straight subbasal and antemedial rufous lines, incurved medial and postmedial lines, the former double, a large semicircular black patch with an indentation in its upper edge on outer margin, a marginal series of pale specks Hind wing dark fuscous

In quadrilmeata, from Borneo, there is a prominent black spot

at end of cell of fore wing, which is almost obsolete in the more ochreous form marginata, from Sikhim

Hab Sikhim, Borneo Eap. 36 millim.

B (Aramuna) Male with the antennæ fasciculate, the anal tuft very large, underside of fore wing with a patch of differently formed scales on median nervure, hind wing shortened, with a large patch of flocculent scales below costa, the costal neuration being distorted downwards

a Male with a patch of curved woolly hair on apical part of

margin of hind wing

2544 Borsippa pallens, Moore, Lep Ath p 172, pl 5, fig 9, C & S Aramuna marginata, Moore, Lep Ceyl 111, p 36, pl 149, fig 6, C & S no 1924 Borsippa punctilineata, Hmpsn Ill Het vin, p 83, pl 146, fig 14 Bagada diffisa, Swinh Trans Ent Soc 1890, p 224, pl vii, fig 17 Herminia orthosiana, Swinh P Z S 1885, p 473, pl 28, fig 15, C & S no 2958

Fore wing with traces of antemedial, medial, and postmedial speckled Ochreous brown.



Fig 290 Borsippa pallens, Q ł

lines, a purplish rufous marginal band narrowing to apex and outer angle and with a slight indentation near apex, a marginal series of pale specks Hind wing whitish

The inner edge of the marginal band of hind wing more curved inwards at centre, in the form diffisa angled inwards with a black spot at the angle, in the form orthograna almost straight.

Hab Nagas, Bhamo. Bombay, Nilgiris, Ceylon. Exp 32 millim

- b Male with a patch of curved woolly hair on vein 2 of hind wing, and none at apex
- 2545 Borsippa Iutosa, Swinh Trans Ent Soc 1890, p 225, pl vii,
- d Head pale thorax and abdomen fuscous. Forewing ochreous grey, suffused with fuscous, the inner area purplish, faint traces of waved lines, a submarginal series of small black lunules and oblique fuscous shade from apex Hind wing pale fuscous

Hab Rangoon Exp 36 millim.

- SECT II. Male with cilia and bristles to antennæ, the patagia normal, abdomen with a chitinous cap covering the anal tufts, hind wing with tuft of long hair on upperside of costa
- 2546 Borsippa sejuncta, Wik Cat ix, p 109, C & S no 1692 Caradrina paucifera, Wik Cat x, p 298, C & S no 2113

Reddish or greenish grey, palpi black with the extremity white. Fore wing with speck at end of cell, a sinuous submarginal series of pale and dark lumiles, a marginal series of dark specks. Hind wing dark fuscous

Hab. Ganjam, Travancore, Moulmein Exp. 34 millim

SECT III Females only available for study

- 2547. Borsippa hypenoides, *Moore*, P Z S 1881, p 354, pl 38, fig 19, C & S no 1793.
- Q Chestnut-red or dark purplish brown, palpi black at base, a black spot on metathorax. Fore wing with indistinct oblique antemedial and medial lines, the former with pale inner edge, a postmedial line, with pale outer edge, angled beyond the cell, a submarginal series of indistinct dark specks. Hind wing reddish fuscous, with fine marginal ochreous line.

Hab Pareshnáth, Bengal, Ganjam Evp. 30 millim

2548 Borsippa megastigmata, n sp

Q Ochreous brown, with the tips of the scales dark rufous, palpi blackish at base. Fore wing with oblique antemedial ochreous line, the orbidular and reniform very large, with ochreous outline, a postmedial ochreous line, highly angled beyond cell, with a subtriangular dark chocolate patch on the costa beyond it, some specimens with some chocolate submarginal spots towards inner margin, a marginal series of minute specks. Hind wing goldenfuscous

Hab Sikhim (Moller), Nagas (Doherty) Exp 40 millim Type in coll Elwes

Genus PLECOPTERA.

Plecoptera, Guen Noct u, p 429 (1852)

Type, P reflexa, Guen

Range. Ethiopian and Oriental regions

Palpi slight and reaching vertex of head, the 3rd joint minute, antennæ of male with long cilia and bristles, thorax and abdomen smoothly scaled, tibiæ slightly hairy and without spines. Fore wing with the apex nearly rectangular

SECT I Hind wing of male with vein 1 b fringed with hair, the inner area developed into a very large lobe, turned over on surface of wing and containing a small tuft of hair at base

2549 Plecoptera reflexa, Guen Noct ii, p 430, C & S no 2312.
Trigonodes gammoides, Wik Cat xv, p 1833.
Poaphila simplex, Wik Cat xv, p 1840
Poaphila hamifera, Wik Cat xxxii, p 992
Poaphila uniformis, Moore, Lep Atk p. 172, pl. 5, fig 10, C.& S

Grey-brown, the head and collar bright fulvous Fore wing



Fig 291
Plecoptera reflexa, 5

with obliquely waved antemedial line, a large reniform spot, often with black centre and with a rufous spot on the costa above it, an inwardly-oblique waved postmedial line and sinuous submarginal line, a marginal series of minute dark specks. Hind wing fuscous brown, the outer area slightly darker. Underside greyish white, the outer area fuscous, male with the costal area of hind wing also fuscous.

Uniformis is a slightly marked pale

form

Hab Throughout N. India, Poona, Andamans Exp 30 millim

SECT II Male with a tuft of long hair from femoro-tibial joint of mid legs, no fold to hind wing

2550 Plecoptera resistens, Wth Cat xv, p 1749 Poaphila oculata, Moore, Lep Ath p 172, pl 5, fig 11, C & S no 2309 Poaphila reversa, Wth Cat xxxii, p 991

Heliothis juncea, Swinh P Z S 1885, p 448, pl 27, fig 4, C & S no 1733

Remigia quesita, Swinh P Z S 1885, p 468, pl 27, fig 8, C & S no 2705

Q Differs from reflexa in the thorax and fore wing being suffused with ochreous or yellowish. Fore wing with the reinform large and dark, the centre suffused with grey, the outer area sometimes suffused with bright yellow. Hind wing with the basal area paler, contrasting with the dark outer area, some specimens with traces of a postmedial line.

d Head and collar yellow, thorax and abdomen fuscous black Fore wing dark red-brown, with the reniform in the shape of a deep black lunule, ante- and postmedial spots on costa. Hind

wing and underside darker

Hab Congo, Bhutan, Bombay, Nilgiris. Exp 32 millim.

2551. Plecoptera luteiceps, Wlk Cat xxxii, p 992, C & S no 2307 Posphila quadrilinesta, Moore, Lep Atk p 172, pl. 5, fig 22, C & S no 2311

Head, collar, and tibize orange-fulvous, thorax and abdomen brownish fuscous. Fore wing brownish fuscous suffused with purplish, a straight erect antemedial line, a postmedial line, angled below costa, an indistinct fuscous reniform stigma, a highly sinuous submarginal line. Hind wing dark fuscous, cilia of both wings pale brown

Hab Sikhim, Khásis Erp 36 millim.

2552. Plecoptera erica, Swinh Trans Ent Soc 1891, p 149, pl 8, fig 15

Differs from luterceps in the reniform being replaced by two specks, the postmedial line absent, a straight submarginal rufous line, with indistinct fuscous line beyond it

Hab Shanghai, Bombay, Java Eap 40 millim.

Genus ACANTHOLIPES.

Acantholipes, Led. Noct Eur p 198 (1857)
Gesonia, Wik Cat xvi, p 75 (1858)
Oglasa, Wik Cat xvi, p 194
Dragana, Wik Cat xvi, p 200
Hileia, Wik Cat xviv, p 1100 (1862)
Apphadana, Wik Cat xxiv, p 1212 (1865)
Docela, Wik Cat xxiv, p 1258
Hemipsectra, Hmpsn Ill Het viii, p 84 (1891)

Type, A regularis, Hubn from Europe

Range Europe, Africa, Formosa, throughout India and

Cevlon, E Pegu, Andamans

Palpi obliquely upturned, the 2nd joint very broadly fringed with hair, the 3rd minute, thorax and abdomen smoothly scaled and slender, tibiæ without spines and not fringed with long hair Fore wing with the apex quadrate or slightly acute

SECT I (Acantholipes) Antenno of male minutely caliated A. Wings moderately broad.

2553 Acantholipes circumdatus, Will Cat xv, p 1763
Acantholipes flavisigna, Moore, P Z S 1881, p 371, C & S
no 2692
Acantholipes nigrisigna, Moore, P Z S 1881, p 372, C & S

no 2694
Docela vetustalis, Wlk Cat axaiv, p 1258
Docela affinis, Butl A M N H (5) v, p 225, C & S no 2691

Pale ochreous brown Fore wing with a black lunule at end of cell, the outer half of wing clouded with fuscous, especially a patch below the end of the cell and three patches beyond the

almost straight oblique yellow band from the apex, cala white at aper Hind wing with an antemedial fuscous band, a medial yellow band not reaching the costa and varying in breadth, the outer area fuscous, a leaden-grey patch at anal angle

Hab W and S Africa, NW. and W India Exp 24-28

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2554 Acantholipes trajectus, Wlk Cat xxxiii, p 986 Acantholipes trifasciata, Moore, Lep Ceyl 111, p 187, pl 172, fig 2, C & S no 2696 Acantholipes inconspicua, Butl P Z S 1880, p 677



Fig 292 Acantholipes trajectus, &

Differs from araumdata in being dark leaden-grey Fore wing with an oblique antemedial line from the cell to inner margin, the band from apex red-brown Hind wing with the medial band red-brown and narrow

Hab Formosa, W India, Nilgiris, Ceylon Evp 28 millim

*2555 Acantholipes hypenoides, Moore, P Z S 1881, p 372, <math>C & Sno 2693

Greyish ochreous brown Fore wing thickly irrorated with brown, a medial blackish-brown band from median nervure to inner margin, bordered outwardly by a slender ochreous line, angled below the costa, a waved dark tascia below apex, some pale specks on costa towards apex, a pale line on outer margin below apex Hind wing paler

Hab Sikhim Exp 22-25 millim

2556 Acantholipes fasciatus, Hmpsn Ill Het viii, p 82, pl 146,

Purplish grey, the palpi black, the basal joint white wing with indistinct waved antemedial line, a black lunule at end of cell, a double, oblique, irregularly waved, antemedial line, a sinuous chestnut postinedial line, with black maculate edges, and a line beyond it, a marginal series of black specks. Hind wing with double postmedial line, not reaching the costa, and a marginal lunulate line

Hab Nilgiris Exp 32 millim

2557 Acantholipes similis, Moore, Lep Ath p 174, pl 6, fig 5, C & S no 2325 Phurys ochreifascia, *Hmpsn Ill Het* viii, p 83, pl 146, fig 2 Phurys leucopos, *Hmpsn Ill Het* viii, p 83, pl 146, fig 10

3 Ochreous brown, the palpi, pectus, and fore legs chestnut, the last with the tibiæ white-fringed and the tarsi white Fore wing with two antemedial and two medial indistinct dark lines, a postmedial oblique diffused line, with black specks on it towards mner margin, and a slight waved line beyond it, a marginal series

of specks. Hind wing with two antemedial lines, a medial outwardly diffused line and submarginal line, a series of marginal specks

2 paler, the palpi and pectus but slightly chestnut-coloured, the fore legs brown Wings with the lines more prominent, the fore wing with an ochreous line inside the postmedial oblique line

Hab. Sikhim; Nilgiris. Exp, & 28, & 30 millim

2558. Acantholipes notatus, Hmpsn Ill Het vin, p 84, pl 146, fig 3

d Differs from simils in the palpi and pectus being black, the fore legs black, with the tibiæ and tarsi white. Fore wing with the lines very indistinct and more oblique, the postmedial line with a black subapical spot and a speck above it, a similar spot with a speck below it towards inner margin.

2 paler.

Hab. Nilgiris. Exp 28 millim

2559 Acantholipes inscitius, Swinh P Z. S 1885, p 473, C & S

Differs from notatus in the fore wing having a black spot at centre of cell and a black lumule at end of it

Hab Bombay, Poona Exp 24 millim.

2560 Acantholipes miser, Butl P Z S 1883, p 166, C & S no 2944

Purple-grey Fore wing with traces of two antemedial and one medial waved line from median nervuie to inner murgin, a black lunule on discocellulars, a rufous-brown submarginal sinuous band, a marginal series of dark specks. Hind wing with traces of medial and postmedial lines

Hab Simla, Mhow, Asirgarh Exp. 22 millim.

*2561 Acantholipes fasciosus, Moore, Lep Ath p 174, pl 6, fig 6, C & S no 2323.

Q Differs from simils in being greyer Fore wing with six indistinct lines between the base and postmedial line, hind wing with eight indistinct lines

Hab Sikhim Exp 45 millim.

2562. Acantholipes dissimilis, Moore, Lep Ath p 174, C & S no 2322

Differs from simils in the fore wing having the markings indistinct, except the oblique ochreous dark-bordered line from apex. Hind wing with the markings indistinct, except the submarginal diffused fuscous band, which is bent outwards towards the apex, but does not reach it Underside yellower, with diffused fuscous submarginal oblique bands

Hab. N. W. Himalayas. Exp 34 millim

B Wings considerably broader, the build stouter

2563 Acantholipes trifasciatus, Moore, P Z S 1877, p 612, Moore, Lep Ceyl in, pl 174, fig 12, C & S no 2784
Capnodes stellata, Moore, P Z S 1883, p 28, C & S no 2782
Capnodes pallens, Moore, Lep Ath p 176, pl 5, fig 21, C & S no 2780

Yellowish brown, liver-colour, or dark red Fore wing with indistinct waved antemedial and postmedial lines with series of white specks on them, traces of medial and submarginal sinuous lines, two dark specks at end of cell, a marginal series of specks Hind wing with indistinct ante- and postmedial lines with series of white specks on them, a marginal series of dark specks

Hab Dharmsála, Campbellpur, Ceylon, Nágas, Andamans

Eap 36-40 millim

SECT II (Oglasa) Antennæ of male with long cilia and bristles

2564 Acantholipes lagusalis, Will Cat xvi, p 194

Brownish ochreous, palpi dark at sides. Fore wing with dark subbasal, antemedial, and medial patches on the costa, a black streak at lower angle of cell, traces of curved antemedial and postmedial series of specks and a marginal series. Underside of hind wing with cell-spot and postmedial line.

In the Ganjam specimen there is a dark lumulate subapical mark

on outer margin of fore wing below the apex

Hab Ganjam, Nagas, Borneo Enp 24-28 millim

SECT III (Gesonia) Antennæ of male serrate and fasciculated

2565 Acantholipes obeditalis, Will Cat vii, p 75, C & S no 2826
Hileia crambisata, Will Cat viii, p 1100, C & S no 3689
Apphadana festina, Swinh P Z S 1885, p 475, pl 28, ing 3,
C & S no 2943
Apphadana nigrofusca, Swinh P Z S 1885, p 475, pl 28, ing 4,
C & S no 2945

Apphadana rubicundula, Swinh P Z S 1885, p 475, pl 28, fig 2, C & S no 2946

Apphadana rusticula, Swinh P Z S 1885, p 474, pl 28, fig 1 C & S no 2947

Fuscous or rufous brown, palpi chocolate at sides. Fore wing with traces of ante- and postmedial waved lines, the latter incurred below cell, traces of specks in and at end of cell, an obliquely sinuous postmedial pale line, with rufous diffused on its outer edge, a marginal series of dark specks. Hind wing with postmedial line developed towards inner margin, a marginal series of dark specks, traces of medial and submarginal lines.

Some specimens have a dark spot beyond the postmedial line of

fore wing at middle, and another above inner margin, rubicundula has the ground-colour of fore wing otherous as far as the submarginal line, and nigrofusca has the colour between the ante- and postmedial lines fuscous black

Hab Bombay, Poona, Nilgiris, Ceylon Exp 22-24 millim

- 2566 Acantholipes gemma, Swinh P Z S 1885, p 469, C & S no 2825
- 9 Brownish ochreous Fore wing with the outer half suffused with fuscous brown, an obscure antemedial line, an orange-yellow spot on discocellulars, waved postmedial and submarginal lines, the latter diffused inwards

Hab Poona Exp. 20 millim

- SECT IV (Hemipsectra) Antennæ of male pectinated to middle on the outer side, with bristles on the inner side
- 2567 Acantholipes plumipars, Hmpsn Ill Het viii, p 84, pl 147, fig 23
- d Pale brown, with a slight reddish tinge, palpi black at sides. Fore wing with two black specks at base, the upper one on the costa, an antemedial interrupted curved line arising from a black speck on the costa, a similar postmedial line excurved from the costa to below vein 2, a marginal series of specks

The specimen from Ganjam has a chestnut tinge Hab Ganjam, Nilgiris Exp 24-30 millim

SECT V (Diagana) Antennæ of male bipectinated, the branches short

2568 Acantholipes pansalis, Wil. Cat xvi, p 200, Hmpsn Ill Het 1x, pl 167, fig 3, C & S no 2941
Apphadana evulsalis, Wile Cat xxxiv, p 1213
Poaphila concors, Wile Cat xxxv, p 1969

Ochreous or reddish brown Fore wing slightly irrorated with black scales, very indistinct antemedial, two waved medial, and more prominent postmedial line, with the area beyond it darker and often with obscure fuscous patches beyond it at centre and inner margin, a marginal series of black specks Hind wing with sinuous postmedial line, the area beyond it darker and with traces of a submarginal line

Hab Formosa, throughout India, Ceylon, and Burma, Anda-

mans, Singapore Exp, & 22, 2 24 millim

2569 Acantholipes fuscicosta, Hmpsn Ill Het viii, p 101, pl 148, fig 15

Pale reddish brown, the head and collar smoky black Fore wing with the costa black, an antemedial line, a speck at end of cell, the outer area suffused with fuscous, with waved postmedial

and submarginal lines, a series of marginal black specks. Hind wing with antemedial line, the outer area suffused with fuscous, with postmedial and submarginal waved lines, a marginal series of black specks.

Hab Nilgiris, Ceylon, E Pegu Evp 18-22 millim

SECT VI Antennæ of male bipectinated, the branches long

2570 Acantholipes bilineatus, n sp

d Dark red-brown Fore wing with straight dark ante- and postmedial erect lines, a dark marginal line Hind wing fuscous brown, with fine marginal line Underside of both wings with dark postmedial line

Q with the hind wing greyish

Hab Sikhim (Elwes), Nágas (Doherty) Erp, o 28, 2 24 millim Type in coll Elwes

Genus REMIGIA

Remigia, Guen Noct 111, p 312 (1852) Cauninda, Moore, Lep Ceyl 111, p 190 (1884)

Type, R frugalis, Fabr

Range Universally distributed except in the Palearctic region,

where it is found in Siberia and Japan

Palpi upturned, reaching above vertex of head, the 2nd joint thickly scaled, the 3rd prominent, antennæ of male ciliated, with bristles to the joints, thorax and abdomen smoothly scaled, mid tibiæ spined

Larvæ with two pairs of abdominal prolegs

SECT I Male with the mid and hind tibiæ clothed with short hair

2571 Remigia discios, Koll Hugel's Kaschmir, iv, p 477, C & S

Dark grey Fore wing with a short subbasal fine line, an antemedial dark brown band, very broad towards inner margin, where it is bounded by the recurved portion of the postmedial line, a slight line on the discocellulars and a triangular spot beyond them, a straight postmedial line, with its outer edge diffused to the indistinct dentate submarginal line, a waved marginal line. Hind wing brownish fuscous, with indistinct medial line, the outer area darker

Hab NW Himalayas Erp 50 millim

2572 Remigia laxa, Wll. Cat xiv, p 1486 Remigia pavona, Feld Reis Nov pl 117, fig 9, C & S no 2704

Differs from discres in being much redder brown Fore wing with the dark band beyond the antemedial line much broader

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extending to the end of cell and getting wider towards inner margin, the dark suffusion beyond the remform slight

Hab Sikhim. Evp 44-48 millim

SECT II (Cauninda) Male with the mid and hind tibiæ clothed with long hair

2573 Remigia archesia, Urim Pap Exot in, pl 273, F, G, Moore, Lep Ceyl in, pl 172 figs 3,3 a (larva), C & S no 2697 Phalæna virbia, Gram Pap Evot in, pl 273, H
Remigia gregalis, Guen Noct in, p 320, C & S no 2703 Remigia pellita, Guen Noct in, p 319
Remigia jugalis, Wlk Cat viv, pl 505
Remigia mutuata, Wlk Cat viv, pl 505
Hypetra defundens, Wlk Cat vivin, pl 963
Remigia associata, Wlk Cat vivin, pl 1010
Remigia inconsisa, Wlk Cat vivin, pl 1013
Remigia bifasciata, Wlk Cat vivin, pl 1014
Ophiusa mayeri, Boisd Faun Ent Madag, Lép pl 104

Pale red-brown. abdomen pale fuscous, the anal tuft ochreous Fore wing with a short subbasal red-brown line, an oblique antemedial pale or ochreous line, with diffused red-brown band on its outer edge, a sinuous medial line angled on median nervure, the remform large and indistinct, a red-brown diffused postmedial band, on which is a dark line slightly excurved beyond the cell,



Fig 293—Remigia archesia, &

and at vein 2 very irregularly recurved to lower angle of cell, then descending to inner margin, an indistinct pale waved submarginal line, with a series of black specks on it, a dark waved marginal line. Hind wing othreous fuscous, with narrow fuscous medial band and diffused submarginal band. Legs rufous

Some specimens have a black spot on the fore wing above the inner margin before the middle, the variety gregalis is duller in

colour, with the markings of the fore wing obsolescent

Larva purplish brown speckled with black, the lateral area yellowish with red lines, a sublateral row of small black dots. head with a brown and red lateral streak Food-plant, Desmodium Pupa efflorescent

Hab Ethiopian and Oriental regions, N China Eap 42-54

millim.

SECT III (Remigia) Male with the hind tibis and tarsi clothed with long thick pile

2574 Remigia frugalis, Fabr Syst Ent vi, p 601, Moore, Lep. Ceyl iii, pl 172, figs 4, 4 a (larva), C & S no 2702
Remigia translata, Wlk Cat xxxiii, p 1015
Chalciope lycopodia, Geyer, Hubn Zutr v, 25, figs 897, 898

Grey-brown Fore wing with a diffused dark mark above the centre of vein 1, an oblique postmedial line pale inwardly, redbrown outwardly, a submarginal series of black specks Hind wing with postmedial and diffused submarginal lines

Some specimens have a black spot above inner margin of fore

wing before the middle

Larva pale yellowish ochreous, with darker lines, two subdorsal lines, and a sublateral series of olivaceous spots, 4th and 5th somites edged behind with black Food-plants, Zingiberaceæ

Had W Africa and throughout the Oriental and Australian

regions Exp 36-50 millim

Genus TRIGONODES.

Trigonodes, Guen Noct 111, p 281 (1852) Chalciope, Hubn Verz p 268 (1818) non descr Attatha, Moore, P Z S 1878, p 847

Type, T hyppasia, Cram

Range Ethiopian, Oriental, and Australian regions

Palpi upturned, reaching just above vertex of head, the 2nd joint roughly scaled, the 3rd prominent, thorax and abdomen smoothly scaled and slender, mid and hind tibix spined. Fore wing with the apex somewhat produced

Larvæ with two pairs of abdominal prolegs.

SECT I (Trigonodes) Male with the antennæ ciliated, mid and hind tibiæ fringed with hair

2575 Trigonodes hyppasia, Ciam Pap Exot 111, pl 250, E, C & S no 2687

Phalæna deliana, Stoll Cram Pap Exot v, p 160, pl 36, fig 4 Ophiusa anfractuosa, Boisd Fuun Ent Madag, Lép p 104, pl 15, fig 6

Trigonodes inacuta, Guen Noct 111, p 284
Trigonodes exportata, Guen Noct 111, p 284
Trigonodes acutata, Guen Noct 111, p 283
Trigonodes compar, Will. Cat xiv, p 1451

Chalciope deltifera, Feld Reis Nov pl 117, fig 24 Chalciope mahura, Feld Reis Nov pl 117, fig 13

Pale ochreous brown, slightly suffused with fuscous or dark greybrown Fore wing with a large black white-edged triangular patch below the cell from near base to towards outer angle, a similar smaller patch beyond the cell on vein 5, with some pale fulvous beyond it, a slightly sinuous submarginal pale line, with patches of black suffusion inside it and a series of black specks beyond it, a dark marginal line. Hind wing with indistinct medial line, the outer area suffused with fuscous

Hab. Africa, Mauritius, Madagascar, Aden, China, Formosa, throughout India, Ceylon, and Burma, Java, Australasia Exp

46 millim.

2576 Trigonodes cephise, Ciam Pap Exot 111, pl 227, C, C & S no 2685 Trigonodes maxima, Guen, Noct 111, p 282, C & S no 2688

o Differs from hyppasia in the basal triangle of the fore wing extending to nearer the outer angle, the outer triangle much larger and extending to the submarginal line, which is evenly curved. Hind wing with the basal area suffused with fuscous; no medial line, the outer suffusion forming an ill-defined band.

2 much yellower, fore wing with the outer triangular patch broken up into a streak above vein 5, and a lumilate patch on the

submarginal line

Hab Moulmein, Rangoon, Fiji. Exp 54-66 millim.

SECT II Male with the antennæ expanding into a scale-clothed bulb just before the middle, and bipectinated from there to apex, tibiæ not fringed with hair.

2577. Trigonodes disjuncta, Moore, Lep Ath p 171, C & S no 2686

Differs from hyppasia in the basal triangular patch of the fore wing having its apex truncate, and being more produced towards



Fig 294.—Trigonodes disjuncta, &

outer angle, the submarginal line waved Hind wing uniform fuscous

Hab. Bombay; Nilgiris. Exp. 45 millim

SECT III (Attatha) Male with the antennæ almost simple, tabiæ not fringed with hair

2578 Trigonodes regalis, Moore, P. Z S 1872, p 575, pl 83, fig 7, C & S no. 807

d Head and thorax whitish, the frons, a band on thorax, and

stripe on metathorax black-brown, abdomen, palpi, pectus, and legs crimson, the legs striped with black. Fore wing white, a black-brown stripe below the cell from base, a narrower stripe on inner margin, an oblique medial band from middle of costa to near outer angle, widest at the costa, and with a line beyond it from below the costa to vein 2, where it is recurved, a large triangular patch from costa at apex to above outer angle, a marginal line terminating at vein 3, the outer angle crimson, with three black spots on it. Hind wing crimson, with a submarginal series of black spots.

Hab N India, Canara, Ceylon, Tenasserim Exp 48 millim

2579 Trigonodes ino, Drury, Ill Exot Ins in, p 39, pl 29, fig 3,

C & S no 635

Note note: Figh Figh Sut in 9 = 39, C & S no 9890

Noctua notata, Fabr Ent Syst 111, 2, p 39, C & S, no 2680 Grammodes mundicolor, Will Cat xxx111, p 973

Differs from regalis in the oblique band of the fore wing being quadrate from the costa to median nervure, where its outer edge is angled, the apical triangular patch wider, so as to extend close to the postmedial line and the margin. Hind wing with a triangular patch from the apex to near anal angle, inside the submarginal series of spots.

Hab Sikhim, Nepal, Madras Exp 38 millim

2580 Trigonodes tetraspila, Will Cat xxxiii, p 1076, Hmpsn Ill Het ix, pl 166, fig 2

Q Bright ochreous yellow, the collar black Fore wing slightly irrorated with fuscous, a black band from costa to lower angle of cell, a large apical black spot Hind wing yellow, with apical black spot

Hab Ceylon Exp 36 millim

Genus FODINA.

Fodina, Guen Noct 111, p 274 (1852)

Type, F orrolus, Guen

Range Ethiopian, Oriental and Australian regions

Palpi upturned, with the 2nd joint reaching vertex of head, the 3rd long, antennæ of male with bristles to the joints, thorax and abdomen smoothly scaled, those without spines, and not fringed with hair in male. Fore wing with the apex quadrate

2581 Fodina oriolus, Guen Noct 111, p 274, C & S no 2681

Head and thorax black, shaft of antennæ and a band between their bases white, abdomen orange Fore wing black, with a broad oblique medial white band, the outer margin and cilia grey Hind wing orange, the apical area black, an elongate black patch near anal angle and black streak at anal angle

Hab Sikhim, Sylhet Evp 48 millim

2582 Fodina pallula, Guen Noct 111, p 275, C & S no 2682

Differs from orrolus in the base of the hind wing being tuscous black and joined to the patch near anal angle

Hab NW Himalayas, Assam, Calcutta, Ceylon E_{1p}

42 millim

2583 Fodina stola, Guen Noct in, p 275, C & S no 2683 Fodina postmaculata, Hmpsn Ill Het 1x, p 113, pl 165, fig 5

Head and thorax bright red-brown, collar and metathorax panded with whitish, abdomen orange Fore wing with the basal



Fig 295 -Fodina stola, &

part of costa purplish, a large irregular red-brown patch on basal half of wing, with ochreous edges and running out to an angle on vein 2, the area between it and the large red-brown patch occupying the apical area, and extending nearly to outer angle, ochreous; an ochreous marginal line, the cilia grey Hind wing orange, with the apical area fuscous black, traces of a fuscous

patch near anal angle Underside orange, with dark medial patch

to fore wing and apical patches to both wings

The Ceylonese form postmaculata is smaller, with the band of the fore wing between the red-brown patches narrower and whiter, hind wing with the black patch at anal angle large, underside more uniform orange

Hab NW Himalayas, Sikhim, Bhutan, Moulmein, Ceylon

Exp 36-46 millim

2584 Fodina cuneigera, Butl Ill Het vii, p 79, pl 132, fig 5

Head and collar chestnut, the latter with a white band, thorax black, abdomen ochreous fuscous Fore wing ochreous brown, suffused with fuscous, the costa purplish, a large, black, whiteedged, triangular basal patch, a smaller triangular purplish-black patch on costa before apex Hind wing brownish ochreous suffused with fuscous, the apical area fuscous

Hab Kángra, Ganjam, Nilgiris Exp 40 millim

2585 Fodina juncta, n sp

d Head and thorax dark brown, a pale band on metathorax, abdomen fuscous Fore wing with the base brown, followed by an oblique white band, a large irregular dark brown patch with white edges on medial area, joined to a quadrate apical patch, and having the medial costal area and area near outer angle pale brown, a black speck at end of cell Hind wing dark fuscous

Hab Sikhim (Dudgeon) Eip 26 millim Type in coll Moore

Genus GRAMMODES

Grammodes, Guen Noct 111, p 275 (1852) Colbusa, Will Cat xxxui, p 978 (1865)

Type, G geometrica, Fabr

Range W Africa, China, Formosa, throughout India, Ceylon.

and Burma, Java, Borneo, Australia, Fin

Palpi upturned, reaching just above vertex of head, the 3rd joint minute, antenue almost simple in male, thorax and abdomen smoothly scaled and somewhat slender, tibiæ clothed with rather long hair, the mid tibiæ spined Fore wing short and broad, the aper somewhat acute

Larvæ with 3 pairs of abdominal prolegs

2586 Grammodes mygdon, Cram Pap Exot 11, pl 156, G, C & S

Chalciope mygdonias, Hubn Verz p 268

Head and thorax dark red-brown, abdomen greyish fuscous Fore wing purplish grev, the costa ochreous, a large red-brown patch occupying the whole wing except the costal and outer areas, and crossed by an oblique ochreous band, its costal and outer edges bordered by reddish othreous, their angle almost joined by a red-brown streak from the apex, a submarginal series of specks Hind wing fuscous, the cilia grey below apex and at outer angle

Hab China, Formosa, throughout India, Ceylon, and Burma,

Java, Borneo Exp 36-40 millim

2587 Grammodes geometrica, Fabr Syst Ent p 599

Phalæna ammonia, Ciam Pap Evot 111, pl 250, D, C & S no 2676

Noctua bifasciata, Petag Sp Ins p 38, iig 26 Noctua linearis, Hubn Beitr 11, p 26 T Noctua parellaris, Hubn Noct pl 66, iig 324 Noctua chalciptera, Borkh Schmett Eur 17, p 771 Giammodes congenita, Wik Cat xiv, p 1443

Fore wing with a large black patch occupying the Grey-brown



Fig 296 Grammodes geometrica, &

whole wing except the basal, costal, and outer areas, its outer edge waved and joined by an oblique streak from the apex, ante- and postmedial lines recurved below the costa, with whitish bands outside them on the black patch, the outer part of the postmedial band pale fulvous Hind wing fuscous, with medial pale band, the cilia white at aper and anal angle

Hab Europe, Africa, Formosa, throughout India and Ceylon, Java, Australia Eip 26 (dwarf) to 45 millim.

2588. Grammodes stolida, Fabr Syst Ent p 599, C & S no 2679 Noctua cingularis, Hubn Noct pl 76, fig 352

Differs from geometrica in being greyer Fore wing with the inner edge of the postmedial line bent inwards at middle, a white marginal line, cilia white at apex Hind wing with the band white, a round white submarginal spot near anal angle

Hab Europe, Africa, Aden, throughout NW and Penin-

sular India. Exp. 30-40 millim

Genus ENTOMOGRAMMA

Entomogramma, Guen Noct 111, p 203 (1852) Taramina, Moore, Lep Ceyl 111, p 153 (1884)

Type, E fautriv, Guen

Range Africa, Japan, throughout India, Ceylon, and Burma, Andamans

Palpi with the 2nd joint thickened and reaching vertex of head, the 3rd of moderate length, thorax and abdomen smoothly scaled, fore tibiæ of male fringed with long hair, mid and hind tibiæ moderately hairy, mid tibiæ spined. Fore wing short and broad, the costa arched towards apex, the outer margin excurved at centre.

SECT I (Entomogramma) Antennæ of male caliated and without a ridge of scales near base

A Palpi with 3rd joint somewhat short

2589 Entomogramma fautrix, Guen Noct in, p 204, Feld Reis Nov. pl 115, fig 5, C & S no 2548

Fuscous brown, the head blackish, the collar fulvous Fore wing with a fulvous and dark streak below subcostal nervure from the base to the apex, the basal part of costa purplish, antemedial and medial nearly straight lines angled below the costa, an irregularly waved postmedial line angled below costa and near inner margin, followed by a straight fulvous line and a submarginal waved line, a black spot at end of cell. Hind wing with indistinct antemedial line, a straight medial line, a highly dentate postmedial followed by a straight fulvous line, a submarginal series of specks, both wings with fine marginal ochreous line. Underside suffused with fuscous, with some orange on costal and outer areas, and orange lunules on disk of both wings.

Hab Throughout India, Ceylon, and Burma, Andamans, Java

Erp 60 millim

2590 Entomogramma mediocre, Wil Cat xxxiii, p 949
Remigia decora, Wil Cat xxxiii, p 1015, C & S no 2547
Remigia antica, Wil Cat xxxiii, p 1016, C & S no 2546

of Orange-yellow, head and collar chestnut, wings with a

few strige Fore wing with indistinct antemedial line, angled below the costa, a dark lunule at end of cell, an indistinct post-medial line, highly angled beyond cell, and with a slightly waved line beyond it, a more prominent double submarginal straight line, angled below costa, where it is crossed by a fulvous streak from the apex. Hind wing with indistinct antemedial straight line and highly dentate medial line, a more prominent double submarginal straight line, both wings with fine ochreous marginal line. Underside brighter yellow, both wings with cell-spot and three series of brown spots on outer area.

2 with the upperside of thoiax, base of abdomen, and wings suffused with grey, and with the markings much more prominent

Hab Combatore, Nilgiris Exp 50 millim

SECT II (Taramina) Male with the antennæ pectinated with uniseriate branches to two-thirds length, the basal part thickened by a ridge of thick scales above.

2591 Entomogramma tortum, Guen Noct 111, p 204, Moore, Lep Ceyl 111, pl 166, fig 2, C & S no 2550 Entomogramma squamicornis, Feld Reis Nov pl 115, fig 3

Differs from fautrix in being reddish brown without the fuscous tinge. Fore wing with no fuscous below the fulvous subcostal streak, the spot at end of cell outlined with black, the post-medial line dentate. Underside not suffused with fuscous, so that the lumilate lines are prominent.

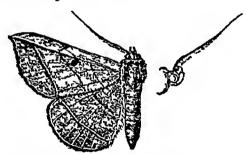


Fig 297 —Entomogramma torium, d

Hab Throughout W and S India, Ceylon, Java Evp 54 millim

Genus THERMESIA

Thermesia, Hubn Verz p 270 (1818) Azazia, Wik Cat xv, p 1576 (1858) Hypospila, Guen Noct 111, p 358 (1852) Tochara, Moore, Lep Ath p 175 (1882) Blasticorhinus, Buil A M N H (6) x11, p 46 (1893)

Type, T generatalis, Hubn, from America Range Throughout the tropical and subtropical zones, Japan

Palpi obliquely upturned, the 2nd joint reaching vertex of head, a sharp frontal tuft, thorax and abdomen smoothly scaled, tibiæ not spined and moderately hairy. Fore wing with the costa highly arched before the apex, which is acute

Larvæ with 4 pairs of abdominal prolegs

The typical section (Sect I) has a large tuft of hair on mid tibiæ and a small tuft at base of hind tibiæ

SECT. II Palpi with the 3rd joint rather shorter than in the typical section Male with no tufts on tibie.

A (Azazia) Hind wing with normal neuration in male, no fold on inner margin

a Antennæ of male with bristles and cilia

2592 Thermesia rubricans, Boisd Faun Ent Madag, Lép p 106, pl 16, fig 1, C & S no 2815
Thermesia transducta, Wlk Cat xxxiii, p 1058
Thermesia consueta, Wlk Char Undescr Lep Het p 93

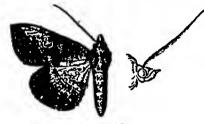


Fig 298
Thermesia rubricans, d -

Rufous or grey-brown, palpi chestnut Fore wing with indistinct subbasal curved line, a white speck in cell, the reniform very large, with two dark specks on it, a postmedial rufous line, very highly angled below the costa and joined by a dark apical streak, a submarginal series of dark specks, a rufous marginal line Hind wing with rufous medial line, post-

medial series of specks, and marginal rufous line Underside much suffused with red; a white spot at end of cell, curved postmedial line and submarginal series of black and white lunules

Hab Africa, throughout the Indian region, Java and Pacific Islands Exp 40-46 millim

2593 Thermesia subcostalis, Wlk Cat xxxiii, p 1059, C & S no 2774

Q. Grey, irrorated with red-brown Fore wing with a brown and fuscous fascia from base of inner margin to upper angle of cell, and thence to apex, an antemedial line from costa to subcostal nervure, nearly straight medial and postmedial lines, angled below the costa, a submarginal line, angled outwards at vein 3, then dentate to inner margin, an almost marginal series of black specks. Hind wing with speck at end of cell, a medial oblique line, joined at inner margin by a curved postmedial line, a dentate submarginal line, an almost marginal series of dark specks.

Hab Moulmein Exp 40 millim

- 2594 Thermesia enervis, Swinh Trans Ent Soc 1890, p 231, pl 8, fig 8
 - Q. Differs from mullosa (p 536) in being more uniformly brown,

both wings with the lines evenly and obliquely curved, a straight submarginal ochreous and fulvous line, a marginal series of dark specks

Hab Rangoon Exp 28 millim

2595 Thermesia oblita, Moore, Lep Ath p 176, C & S no 2771

Head black, thorax ochreous, abdomen fuscous Fore wing ochieous, suffused with fuscous, except the apical costal area, six indistinct curved and waved lines, a black speck in cell and whitish spot at lower angle. Hind wing ochreous, suffused with fuscous, indistinct antemedial, medial, and postmedial waved lines, the medial line with some ochreous suffusion beyond it, a nearly straight submarginal line with ochreous beyond it. Underside ochieous, with fuscous lines and bands

Hab Pareshnáth, Khásis, Khyen Hills, Burma Eip 32 millim

2596 Thermesia arefacta, Swinh P Z S 1884, p 521, pl 48, fig 2 C & S no 2698

d Ochreous Fore wing with traces of waved lines, both wings with a more prominent postmedial waved line, followed by a fuscous band and submarginal waved lines, a crenulate marginal line and series of specks on the veins

Hab Sind Exp 32 millim

2597 Thermesia obliqua Moore, P Z S 1867, p 80, C & S no 2324

d Ochreous suffused with rufous Head and collar chestnut Foie wing with dark specks at centre and end of cell, an oblique pale antemedial band with dark edges from median nervure to inner margin, a line from apex to centre of inner margin, beyond which the area is rather darker, with an oblique ochreous line from below apex to inner margin, traces of two submarginal lines, and a marginal series of dark specks. Hind wing with dark speck in cell, an oblique pale medial line, traces of postmedial and submarginal lines and a marginal series of black specks.

9 much browner and greyer Hab Khásis Erp 36 millim

Thermesia melanocephala, Hmpsn Ill Het viii, p 82, pl 146 fig 9 Poaphila marmorea, Hmpsn Ill Het viii, p 82, pl 146, fig 7

Ochreous, the head black Fore wing with indistinct waved subbasal, antemedial, medial, postmedial, and two submarginal lines, the postmedial line bent outwards beyond cell, a line on discocellulars. Hind wing with black speck at end of cell, waved medial line and submarginal series of black specks. Underside with prominent dentate postmedial and two submarginal bands to each wing

The form marmorea is suffused with fuscous, and has the markings of upperside more prominent Hab Nilgiris Exp 30-34 millim

2599 Thermesia mediorufa, n sp

Head and thorax reddish brown, abdomen fuscous wing brown, with a slight purplish suffusion, a small ferruginous patch on base of costa, the medial area ferruginous with dark edges, the outer edge incurved below the cell, a dark speck in cell and large indistinct remiform, an indistinct sinuous submarginal line and almost marginal series of minute specks, some white specks on costa towards apex Hind wing brown, with two medial lines, the outer minutely dentate, an almost marginal series of minute specks

Hab Nágas (Doherty) Exp 44 millim Type in coll Elwes

b Antennæ of male bipectinated

2600 Thermesia creberrima, Wik Gat xv, p 1574, Butl Ill Het vi, pl. 112, fig 8, C & S no 2769
Huza pyralina, Moore, P Z S 1877, p 610, C & S no 2816
Tochara obliqua, Moore, Lep Ath p 175, pl 6, fig 27, C & S no 2327

Differs from bolinoides in being yellow-brown Hab Sylhet, Andamans Erp 42 millim

- B (Blasticerhinus) Hind wing of male with normal neuration, a large vesicular fold on base of inner maigin, with a tuft of long hair attached to it
 - a The aper of the vesicular fold truncate
- Thermesia rivulosa, Wilk Cat xxxiii, p 1060, Moore, Lep Ceyl iii, pl 174, fig 5, C & S no 2766 2601
- Reddish grey-brown Fore wing with antemedial sinuous line, a dark spot on discocellulars and speck at origin of vein 2, an irregularly waved postmedial line, a waved submarginal line, with the area beyond it fuscous brown, a curved fulvous and ochreous line from the apex to vein 3 Hind wing with sinuous mediai line, lunulate postmedial and submarginal lines, the outer area fuscous brown, both wings with fine marginal ochreous line Hab Moulmein, Nilgiris, Ceylon, Java Esp 32 millim
- b The aper of the vesicular fold produced to a long point 2602. Thermesia otophora, n sp

Differs from rivulosa in being large and more uniformly coloured, hind wing with five lines, additional ante- and postmedial lines being present

Hab Nágas (Doherty) Erp 40 millim Type in coll Elwes

C (Hypospila) Male with the antennæ ciliated, the cell of hind wing short, veins 7 and 8 distorted, 6 given off below angle of

2603 Thermesia bolinoides, Guen Noct 111, p 358, C & S no 2348 Thermesia signipalpis, Wik Cat xv, p 1572

Differs from rubi icans in the colour being almost always much darker red-brown, palpi black, white at tips Fore wing with the remform reduced to a pale speck, the postmedial line less oblique, arising from the costa before apex, and not angled Hind wing with the postmedial line straight

Hab China, throughout India, Ceylon, and Burma, Andamans.

Eap 44 millim

Genus ISCHYJA

Ischyja, Hubn Verz p 265 (1818) Potamophora, Guen Noct 111, p 122 (1852)

Type, I manha, Cram

Range China, Philippines, throughout the Indian region, Sumatra, Java, Boineo

Palpi with the 2nd joint broad and rectangularly scaled, reaching vertex of head, the 3rd long, naked, blunt, and oblique, antennæ thickened and fasciculate in male, thorax and abdomen smoothly scaled, tibiæ without spines, fore tibiæ with a triangular tuit of hair, mid tibiæ slightly fringed, hind tibiæ clothed with long hair Fore wing with the costa highly arched towards apex, which is produced and acute, the outer margin obliquely curved Hind wing with the cell very short, male with veins 2, 3, 4 running close together to near outer margin

Larvæ with four pairs of abdominal prolegs

2604 Ischyja manlia, Cram Pap Evot 1, pl 92, A, Moore, Lep Ceyl 111, pl 163, figs 1, 1 a, b (larva), C & S no 2492

Head and thorax red-brown abdomen fuscous or redbrown, a white spot at base of hind tibiæ, and others on the outer spar of mid legs and outer medial spur of hind legs Fore wing pale or dark red-brown or olive-brown, irrorated with dark specks, traces of antemedial and medial waved lines, a straight oblique postmedial line, the orbicular and remform grey or ochreous, or in the form of deep black quadrate spots with white edges, black spots below centre and end of cell generally present, each with a white lunule on it and conjoined by a streak, a large ochreous patch sometimes present from lower end of cell to inner margin, an obscure waved submarginal line commencing as an oblique streak from the apex Hind wing very dark red-brown, the area near anal angle greyish, with dark strige, a broad, irregularly angled, purplish-blue medial band from the costa to vein 2, a black spot with pale streak on it above anal angle Underside of fore wing with white irregular

postmedial band from the costa to vein 2, hind wing with dentate

postmedial white line

Prore wing much more uniform in colour and without the black patches, the oblique line prominent, hind wing with the band broader and more regular, no mark above anal angle. The colour often very dark

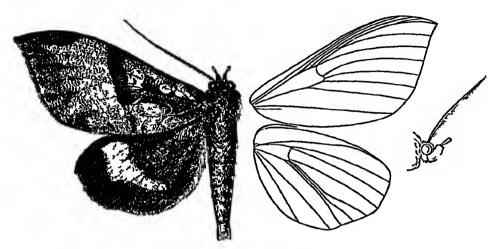


Fig 299 — Ischyja manlia, & 1

Larva purplish brown and ochreous, irregularly marked with short black streaks, the head ochreous, speckled with brown, the 4th, 5th, 6th, 10th, and 11th somites with short dorsal conical prominences Pupa efflorescent Food-plants, Terminaha, Cinnamonia, &c

Hab Philippines, throughout India, Ceylon, and Burma, Andamans, Java Erp, 5 80-100, 9 96-112 millim

2605 Ischyja schlegelii, Snell Tyd v Ent xxviii, p 4, pl 1, fig 2 Ischyja glaucopteron, Hmpsn Ill Het viii, p 88, pl 147, fig 19

3 Differs from manlia in the fore wing being dark grey-green, the antemedial line prominent and angled below the cell—the orbicular and reniform grey, no oblique postmedial line, but the large grey dark-speckled patch from lower angle of cell to inner margin prominent, its upper angle joined by a dentate grey line from the costa and an irregular brown streak from apex, a marginal series of white specks—Hind wing with the band narrower and brighter blue, underside with the basal area suffused with bluish white to near the postmedial dentate line

2 more uniform in colour and greyish brown instead of green, with an oblique postmedial line and the irregular brown streak

from apex

Hab Nilgiris, Burma, Java Eip, o 82, 9 96 millim

539 PLATYJA

Genus PLATYJA

Platyja, Hubn Verz p 268 (1818)

Type, P umminea, Cram

Range China, throughout India, Ceylon, and Burma, Penang.

Java, Borneo, Cape York

Palpi with the 2nd joint broad, quadrately scaled and reaching vertex of head, the 3rd short, blunt, and naked, thorax and abdomen smooth, the latter clothed with long coarse hair dorsally, tibiæ and hind tarsi very hairy in male Fore wing with the costa highly arched towards apex, which is produced and acute, the outer margin obliquely curved Hind wing with the cell short, the anal angle truncate

SECT I Male with the antennæ bipectinate, the branches short, mid and hind legs with tufts of very long hair from the femorotibial joint

2606 Platyja umminea, Cram Pap Exot 111, pl 267, F, C & S nos 2621 & 2760 Sympis subunita, Guen Noct 111, p 344 Cotuza drepanoides, Wlk Cat xv, p 1552 Ginœa removens, Wlk Cat xv, p 1638 Hulodes falcata, Feld Reis Nov pl 115, fig 8

Ophisma trajecta, Wlk Char Undescr Lep Het p 108

Olivaceous red-brown Fore wing with a few grey specks, an antemedial obliquely waved dark line, the orbicular small and dark,

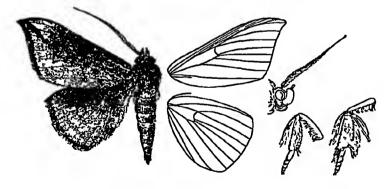


Fig 300 —Platyja umminea, 3

reniform with dark outline, a postmedial crenulate line, highly excurved beyond the cell, then bent inwards to below middle of cell above two dark-edged marks, which in the female are filled in with ochreous, chestnut, or white, and with chestnut rings or spots. a dark streak from apex, with some grey below it Hind wing with crenulate postmedial line and traces of a submarginal line. the cilia tipped with white on both wings Underside with lines

540 NGCTUIDÆ

on the discocellulars, and a crenulate postmedial line with a series of white specks on it

Hab China, throughout India, Ceylon, and Burma, Penang, Sumatra, Java, Borneo, Cape York Eup 48-60 millim

SECT II Male with the antennæ serrate and fasciculate, tufts of long scales from the coxe of legs, hind legs with no tuft of hair from the femoro-tibial joint

A Hind wing with the veins not distorted

2607 Platyja exviola, Hmpsn Ill Het vin, p 91, pl 147, fig 18

of Very dark red-brown, the 3rd joint of palpi and tarsi spotted with white Fore wing with traces of a waved antemedial line and of large orbicular and ieniform stigmata, two small ringmarks beyond the cell, a very indistinct postmedial sinuous line, highly angled beyond the cell, and bent back above an amphorashaped brown mark on vein 2 to below middle of cell, a sinuous whitish streak from apex, the outer area suffused with purple, a marginal series of white specks Hind wing with the outer area suffused with purple, postmedial and marginal series of white Underside with postmedial series of white specks, a pale sinuous apical streak

Hub Nilgiris Exp 60 millim

*2608 Platyja v torsilinea, Guen Noct 111, p 240

Black-brown Wings irrorated with blue-grey, the antemedial line straight and slightly oblique, two fine purplish medial lines structed with rufous, the area between them greyish or reddish yellow, postmedial line angled below the costa, then recurred from vein 2 to lower angle of cell, and with a large series above inner margin, the orbicular and reniform prominent and blown, the latter with two small white ring-marks beyond it and a speck above them on costa, a fine white line from the angle of the postmedial line to apex Hind wing with a purplish submarginal line striated with rufous, obsolete towards costa Underside grey-brown, with a medial series of white specks on the veins of both wings Hab "Central India" Evp 48 millim

B Hind wing of male with the discocellulars almost obsolete, verns 6 and 7 curved upwards, 4 and 5 downwards

2609 Platyja ciacula, Swinh A M N H (6) xii, p 263

d Differs from evviola in the markings of the fore wing being much more prominent, the lines ochreous, the antemedial line straight and oblique, the postmedial line white speckled, the mark enclosed by it ill-defined, the triangular chocolate patch on costa before apex prominent. Hind wing with sinuous white-speckled postmedial line Both wings with the outer half suffused with purple throughout

Hab Nágas, Andamans Evp 62 millim

Genus IONTHA

Iontha, Doubleday, Entomologist, 1, p 297 (1842)

Type, I umbrina, Doubl Range Sylhet, Borneo

of Palpi with the 2nd joint much thickened and leaching vertex of head, the 3rd naked and blunt, antennæ serrate, tholax and abdomen smoothly scaled, the latter very long and with immensely developed tufts of hair at extremity, fore tibiæ hairy, hind tibiæ and 1st joint of tarsi fringed with hair on the outer side. Fore

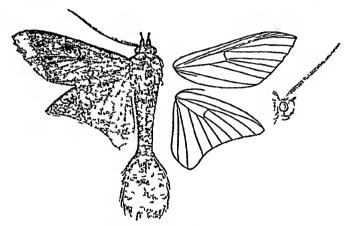


Fig 301 - Iontha umbirna, & }

wing with the costa aiched towards apex, which is acute, the outer maigin oblique, the inner margin arched. Hind wing with the apex much produced and acute, the outer margin oblique and produced into a large lobe near anal angle, vein 3 given off long before end of cell, 8 running rather close to 7 to beyond end of cell

2610 Iontha umbiina, Doubl Entom 1, p 298, C & S no 2594

d Dark fuscous brown, abdomen with the anal tuft black Fore wing with a speck in the cell, both wings with marginal purplish grey band

Hab Sylhet, Borneo Exp 60 millim

Genus CRITHOTE

Crithote, Will Journ Linn Soc vii, p 182 (1864)

Type, C horrdines, Wlk

Range Khasis Canara, Borneo

3 Palpi with the 2nd joint thickened and leaching vertex of head, the 3rd short, naked, and blunt, antennæ bipectinated, the branches short, thoiax smoothly scaled, abdomen long, clothed

dorsally with coarse hair and with large anal tufts, tibiæ without spines, mid tibiæ moderately hairy and fringed with thin flattened scales on the inner side, hind tibiæ and tarsi with immensely developed tufts of hair. Fore wing arched towards apex, which is quadrate, the outer margin straight. Hind wing with the apex produced and acute, the outer margin straight to vein 2, then excised to anal angle, the inner margin fringed with long hair

2611 Crithote horridipes, Wlk Journ Linn Soc vii, p 183

Dark fuscous brown, the anal tufts and tufts on hind legs black

Fore wing with the basal and outer areas greyish



Fig 302 - Crithote horridipes, &

Hab Khásis, Canara, Borneo Exp 40 millim

Genus HARMATELIA

Harmatelia, Moore, Lep Ath p 182 (1882)

Type, H basalıs, Moore Range Sikhim, Khásis

Palpi with the 2nd joint thickened and reaching vertex of head, the 3rd long and naked, antennæ fasciculated in male, thorax clothed with coarse hair, abdomen with dorsal tufts, tibiæ slightly hairy and without spines. Fore wing with the apex somewhat acute, the outer margin slightly angled at centre

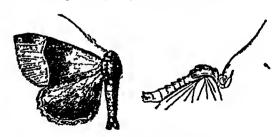


Fig 303 — Harmatelia basalis, d

2612 Harmatelia basalis, Moore, Lep Ath p 183, pl 6, fig 13, C & S no 2726

Head and thorax reddish brown Fore wing with the basal two-thirds reddish black-brown, bounded by a nearly straight pale

line, a dark speck in cell, the outer area pale brown, with some fuscous suffusion and two dark specks near apex, some white specks on costa towards apex and a marginal series of minute dark specks. Abdomen and hind wing fuscous brown. Underside with cell-spot and traces of two postmedial lines.

Hab Sikhim, Khásis Evp 50 millim

Genus EPISPARIS

Episparis, Wlk Cat x, p 475 (1856) Nevissca, Wlk Cat xvi, p 7 (1858) Piadiota, Wlk Cat xvv, p 1572 (1866)

Type, E penetrata, Wlk, from Africa Range Ethiopian and Oriental regions

Palpi upturned and hairy, the 3rd joint minute, a short frontal tuft, antennæ bipectinated to two-thirds length in male, thorax and abdomen clothed with coaise hair, tibiæ hairy. Fore wing with the costa straight, the outer margin excised from vein 5 to outer angle. Hind wing with the outer margin produced to a point at vein 3 and excised below the point.

2613 Episparis tortuosalis, *Moore*, *P Z S* 1867, p 81, pl 7, fig 5, *C § S* no 2841

Head, thorax, and abdomen red brown, the tars white Wings with red-brown shades and dark strike. Fore wing with an indistinct highly curved anteinedial line, a dark speck in cell and minute white lunule on discocellulars, a purplish patch on disk, an indistinct postmedial line, highly excurved beyond cell and with a sinuous whitish line beyond it, terminating at outer angle, where it is joined by another white line from near apex, which is dentate below the costa, the margin and cilia whitish below the angle Hind wing with indistinct medial band, a postmedial whitish line, highly angled outwards at vein 5, a yellow patch on centre of outer margin. Underside of fore wing with large, triangular, apical, chocolate white edged patch. hind wing with the medial area white, with a white postmedial line and black spot at end of cell, a crenulate fuscous submarginal line.

Hab Sikhim, Nilgiris Exp 56 millim

2614 Epispai is varialis, Will Cat vi, p 7 Moore, Lep Ceyl in pl 175, fig 12, C & S no 2842

Episparis exprimens, Will Trans Ent Soc (3) i, p 106, C & S no 2839

Epispans signata, Wik Cat XXIII, p 1032 Epispans davallia, Teld Res Not pl 120, fig 41

Piadiota sejunctata, II ll. Cat xxxv, p 1572, C & S no 2840

Pale dull reddish brown Fore wing with subbasal and antemedial white lines, the latter with the part below the cell displaced outwards, a yellow patch at lower angle of cell and an irregular white spot on the discocellulars, an indistinct medial dark line excurved round cell, a pale sinuous postmedial line arising from a white spot on costa, a yellow apical patch, a pile patch on outer area, with a chocolate lunule on the margin below apea Hind wing with dark mark on discocellulars, indistinct angled



Fig 304 - Episparis varialis, &

fuscous medial line, a white postmedial line highly angled beyond cell, a chocolate lumile on the margin below apex, with a series of spots from it to anal angle. Underside whitish

Hab Throughout India, Ceylon, and Buima, Andamans, Java,

Borneo Eip 50 millim

2615 Episparis sora, Swinh P Z S 1889, p 415

d Differs from varialis in being much darker blown Fole wing with a series of yellow spots on costa, the white spot and yellow patch at end of cell minute, the submarginal line dark, no lumile or white suffusion on outer margin. Hind wing with the postmedial line dark and more angled, no white suffusion

Hab Sikhim, Tenasserim Eip 52 millim

Genus CLATERNA

Claterna, Wik Cat vv, p 1543 (1858) Trigonia, Guen Delt & Pyr p 11 (1854), præocc

Type, C cydonia, Cram

Range Ceylon, Java, Celebes

Differs from Epispais in the palpi baving the 3rd joint longer, the antennæ of male ciliated. Hind wing with the outer margin angled instead of being produced to a point, female with the outer margin of both wings very slightly angled.

2616 Claterna cydonia, Ciam Pap Litot 1, pl 22, F, C & S no 2843

Focilla submemorans, Wlk. Cat xv, p 1533 Clateina exagens, Wlk. Cat xv, p 1543

Fuscous brown, the tarsi white Fore wing with indistinct antemedial curved bluish-white line, with some diffused white scales near it, a white line on discocellulars, a postmedial line ex-

curved beyond cell, with diffused white inside it and a large dark

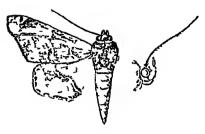


Fig 305 Claterna cydonia, J

Hab Cevlon, Java, Celebes

patch beyond it on the costa, a triangular white spot on costa before apex, with some white specks below it. Hind wing with indistinct irregular medial line and some white marks inside it, a white patch on outer margin from the angle to anal angle, a series of dark strigæ on margin. Underside with small black speck in cell of fore wing, hind wing with black speck in cell and linule at end of it.

Erp, 3 50, ♀ 45 millim

Genus AMPHIGONIA

Amphigonia, Guen Noct 111, p 337 (1852)

Type, A hepatizans, Guen

Range Neotropical and Oriental regions

Palpi with the 2nd joint reaching above vertex of head, the 3rd joint in male curved forwards, with a fuft of hair on inner side, antennæ of male very long and minutely chiated, thorax and abdomen smoothly scaled, tibiæ hairy. Fore wing arched towards apex, which is produced and acute, the outer maigh highly angled at centre. Hind wing with the outer margin produced to a curved point at vein 4

2617 Amphigonia hepatizans, Guen Noct 111, p 338, pl 24, fig 12, Moore, Lep Ceyl 111, pl 173, fig 4, C & S no 2758

Dark fuscous, with a purplish tinge. Fore wing with short subbasal waved antemedial and indistinct postmedial lines, incurved below end of cell a rufous speck on discocellulars, a submarginal

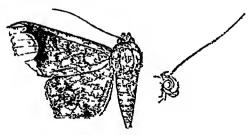


Fig 306 - Amphigonia hepatizans, 3

line with a sinus from below apex to below centre, its arc crossed by a crenulate rufous line, the outer area pale red-brown, except at apex. Hind wing with indistinct curved medial line and dentate vol. II

postmedial line Underside with lunule at end of cell and straight postmedial line to both wings, fore wing with subapical spot

Hab Peninsular India, Ceylon, Burma, Andamans Evp 60

mıllım

Genus BEMATHA

Bematha, Wlk Cat xxx111, p 1095 (1865)

Type, B eatensa, Wlk Range "N India"

Palpi upturned and reaching just above vertex of head, antennæ

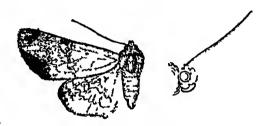


Fig 307 -Bematha extensa, of

thickly ciliated, thorax and abdomen smoothly scaled, tibiæ hairy and not spined. Fore wing with the costa nearly straight, the outer margin obliquely rounded

2618 Bematha extensa, Will Cat axxiii, p 1095, C & S no 3024

d Orange-yellow, the tarsi white Fore wing with the costa and outer area suffused with rufous, a dark speck in cell and some white specks on discocellulars, an indistinct rufous waved line just beyond the middle and crenulate fuscous postmedial line. Hind wing with sinuous medial line and crenulate postmedial line. Underside with some losy suffusion and white below costa of fore wing

Hab "N India" Exp 50 millim

Genus OXYODES

Oxyodes, Guen Noct 111, p 128 (1852)

Type, O scrobiculata, Fabr

Range China, throughout the Indian region, Java, Australia,

Fıjı

Palpi upturned and smoothly scaled, the 2nd joint reaching vertex of head, the 3rd long, antennæ almost simple, thorax and abdomen smoothly scaled and somewhat slender, tibiæ not spined, fore tibiæ fringed with hair Fore wing with the apex produced and acute, the outer margin slightly excised and the cilia crenulate

2619 Oxyodes scrobiculata, Fabi Sp Ins 11, p 212, Moore, Lep Ceyl 111, pl 164, fig 1, C & S no 2497 Phalæna clytta, Cram Pap Exot 1v, pl 399, G Ochreous-brown or yellow-ochreous Fore wing with subbasal, antemedial, medial, two postmedial, and a submarginal indistinct waved line, the orbicular and remform with black edges and often filled in with black, a lumilate mark often present below the cell



Fig 308 - Oxyodes scrobiculata, &

Hind wing with a broad black fascia below the costa, two post-medial lines, an indistinct series of submarginal lunules. Underside brown, irrorated with grey, both wings with the inner area ochreous, a speck at end of cell, a postmedial line and blackish blotches on outer area.

Hab China, throughout India, Ceylon, and Burma, Java, Fiji Erp 64 millim

Genus HAMODES

Hamodes, Guen Noct 111, p 202 (1852) Armana, Swinh Trans Ent Soc 1890, p 250 Kalmina, Swinh Trans Ent Soc 1891, p 480

Type, H propina, Guen, from New Ireland

Range Throughout India and Buima, Andamans, New Ireland Palpi reaching vertex of head, the 3rd joint minute, antennæ minutely fasciculated in male, head and thorax smoothly scaled, thise not hairy and without spines. Fore wing usually highly arched towards apex, which is more or less produced and falcate Hind wing with the anal angle truncate, vein 5 from lower angle of cell.

SECT I Male with no tuft on underside of fore wing, hind wing with the costa not arched

A Fore wing with the outer margin oblique, the costa highly arched

2620 Hamodes aurantiaca, Guen Noct m, p 203, C & S no 2579
Ophisma attacicola, Will Cat xii, p 1383, C & S no 2578
Hypernaria discistriga, Moore, P Z S 1867, p 78, C & S no 2580
Hamodes marginata, Moore, Lep Ath p 169, C & S no 2581

o Canary-yellow, the head above and base of collar black Fore wing irrorated with fuscous and with traces of antemedial, medial, and postmedial lines, the two latter arising from fuscous patches on the costa, a speck in cell and lunule at end of it, a straight rufous line with yellow band inside it from apex to inner

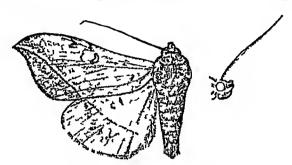


Fig 309 —Hamodes aurantiaca, &

margin of hind wing above anal angle, sometimes with two dark blotches inside it on fore wing and one on hind wing, and with traces of a dentate line beyond it Underside orange, with the lines rufous, prominent, and maculate

2 more ochreous in colour

Hab W India, Sikhim, Assam, Burma, Andamans Evp 60-66 millim

B' Fore wing with the outer margin erect, the costa highly arched

2621 Hamodes unilinea, Swinh Trans Ent Soc 1890, p 243

ochreous-brown, slightly irrorated with black, head fuscous, collar reddish. Fore wing with black speck in cell, an indistinct, ochreous, slightly waved postmedial line, angled below the costa, traces of a dentate submarginal line. Hind wing with spot at end of cell, straight brown and ochreous medial line and traces of dentate submarginal line, both wings with series of marginal dark specks.

Hab Beeling, Burma Exp 44 millim

SECT II (Kalmına) Fore wing of male with large tuft of hair on underside below end of cell, the median nervure bent upwards, the costa highly arched Hind wing with the costa immensely arched, the costal nervure bent upwards

2622 Hamodes ochracea, Swinh Trans Ent Soc 1891, p 481, pl 19, fig 3

3 Differs from aurantiaca in being bright orange. Forewing with no black spot on costa above the reniform, the outer area

bright rufous, the inner part of the oblique line grey Hind wing with the waved suffusion beyond the oblique line i ufous Hab Khásis Evp 60 millim

- SECT III (Armana) Fore wing with the costa slightly arched towards apex, which is but slightly produced, tibiæ more hairy
- 2623 Hamodes nigriricta, Swinh Trans Ent Soc 1890, p 250, pl 8, fig 1
- 3 Differs from aurantiaca in being much less irrorated with black. Fore wing with minute black specks in cell and at end of it, no dark marks on costa, the double oblique lines with the inner one prominent, filled in with pinkish, not bent out to apex of fore wings, and with a black spot beyond them at anal angle, no traces of dentate line beyond them

Hab Bassein, Pegu Eip 40 millim

Genus PLEURONA.

Pleurona, IVIL Cat Nav, p 1564 (1866) Chilkasa, Suinh P Z S 1885, p 853

Type, P falcata, Wlk

Range Bombay, Burma, Andamans

Palpi obliquely poirect, the 3rd joint minute, a sharp frontal tuft, thorax and abdomen clothed with coarse hair. Fore wing with the costa excised, then very highly arched towards apex, which is produced and acute, the outer maigin excurved at the middle

- SECT I (Chilkasa). Antennæ of male fasciculated and with very long setæ on upperside. Fore and hind tibiæ tringed with very long thick hair, mid tibiæ with immense tufts of hair.
- 2624 Pleurona perhamata
 Chilkasa falcata, Swinh P Z S 1885, p 854, C & S no 3241
 (præocc)
- d Head, thorax, and abdomen brownish ochreous Fore wing with the basal two-thirds brownish ochreous, slightly irrorated with fuscous, sinuous, very indistinct, antemedial and medial lines, a double slightly sinuous postmedial line, with the area beyond it chocolate. Hind wing with the basal half brownish ochreous irrorated with fuscous, a double medial line with diffused chocolate beyond it shading off to the marginal area, both wings with fine marginal ochreous line. Underside with medial and postmedial nearly straight lines to both wings.

Hab Bombay, Rangoon Erp 52 millim

SECT II (Pleurona) Antennæ of male cliated and without the long setæ, tibiæ without the long tufts and fringe of hair

2625. Pleurona falcata, Wlk Cat xxxv, p 1564, Moore, P Z S 1877, p 612, pl 60, fig 6, C & S no 2823

Bright red-brown, palpi, fore legs and claspers fulvous Fore wing with indistinct subbasal and antemedial lines, very in-



Fig 310
Pleurona falcata, &

distinct orbicular and reniform spots, a darker ill-defined medial band, a very indistinct postmedial line, excurved beyond cell and with a paler triangular patch on the costa beyond it, a submarginal series of pale specks and marginal series of dark specks Hind wing with pale speck at end of cell, indistinct sinuous medial and postmedial lines, the latter with a fulvous line beyond it, series of dark

submarginal and pale marginal specks. Underside of fore wing with the costa, orbicular and reniform spots pale, a straight submarginal line, hind wing with pale cell-spot and crenulate submarginal line, both wings with indistinct medial and postmedial lines.

Hab Burma, Andamans Exp 38 millim

Genus LYCIMNA.

Lycimna, Wik Cat. xx, p 214 (1860)

Type, L polymesata, Wlk

Range Sikhim, Assam, Burma

Palpi obliquely upturned, the 2nd joint reaching vertex of head and much thickened, the 3rd short. Antennæ minutely cliated, thorax and abdomen smoothly scaled, the patagia long, thisæ moderately hairy and without spines. Fore wing with the costa arched at base, then slightly excised to apex, which is produced and acute, the outer margin highly angled at vein 4. Hind wing with the anal angle truncate

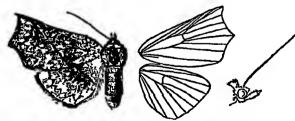


Fig 311.—Lycimna polymesata, &

2626 Lycimna polymesata, Wik Cat xx, p 215, C & S no 3185 Head and thorax orange; abdomen pale reddish, wings pale

reddish and orange, irrorated with black. Fore wing with three indistinct waved black lines on basal area, a small orbicular spot, traces of numerous indistinct waved lines on outer half of wing, crossed by a more prominent oblique line from costa near apex, a small hyaline spot between veins 3 and 4, a submarginal series of black specks. Hind wing with oblique antemedial line, three indistinct waved lines on postmedial area, a submarginal series of black specks.

Hab Sikhim, Assam, Burma Exp 44 millim

Genus HOMÆA.

Homsea, Guen Noct 111, p 208 (1852)

Type, H clathrum, Guen

Range Abyssinia, Aden, NW India

Palpi upturned, the 2nd joint reaching vertex of head and roughly scaled, the 3rd prominent, antennæ minutely ciliated, thorax and abdomen smoothly scaled and somewhat slender, mid tibiæ spined, the tibiæ of male fringed with long hair, and the fore and hind tarsi fringed with hair. Fore wing with the apex somewhat rounded

2627 Homæa clathrum, Guen Noct 111, p 207, C & S no 2551

Head and thorax pale, mottled with dark brown, abdomen fuscous, ringed with white Fore wing fuscous brown, with numerous



Fig 312 -Homæa clathrum, o

indistinct pale waved lines, oblique whitish ante- and postmedial bands, with a fine line beyond each, the veins between the bands whitish, and a whitish patch on the discocellulars, an irregularly waved black submarginal line and crenulate marginal line. Hind wing similar, but with one band only, which is medial. Underside of both wings with a black grey-suffused postmedial band.

Hab Abyssinia, Aden, NW India Evp 40-44 millim

Genus OMMATOPHORA

Ommatophora, Guen Noct 111, p 190 (1852)

Type, O luminosa, Cram

Range Sikhim, Assam, Java, Philippines

Palpi with the 2nd joint reaching vertex of head, the 3rd naked, antennæ almost simple, thorax and abdomen smoothly clothed

with hair, tibize thickly fringed with hair especially the fore tibize, hind tarsi fringed with hair on upperside. Fore wing with the apex nearly rectangular. Hind wing with vein 5 from lower angle of cell, which is rather short

2628 Ommatophora luminosa, Ciam Pap Exot in, pl 274, D, C & S no 2545
Ommatophora fulvastra, Guen Noct in, p 191

Head, thorax, and abdomen dark brown, palpi with a black spot at base, a black shoulder-stripe. Fore wing brown, the basal and costal areas suffused with glistening purplish, the post-medial area with vinous red, curved subbasal and waved ante-medial black lines, an occllus beyond end of cell composed of a white-edged brown lunule on inner side, a blackish pupil with greenish-yellow patch on it, the outer edge black and arising from

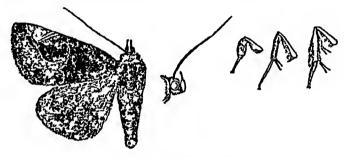


Fig 313—Ommatophora luminosa, of

a black spot above the pupil, a postmedial line oblique and whitish from the costa to vein 6, then becoming a curved black line with greenish lower edge to below the ocellus, and thence sinuous to inner margin, an indistinct, pale, oblique submarginal line, dentate near costa and inner margin. Hind wing with fuscous medial line, highly dentate postmedial, with two indistinct fuscous lines beyond it, both wings with two crenulate black lines inside the margin, underside with large black cell-spot and some white marks on a diffused submarginal band

Hab Sikhim, Assam, Java, Philippines Exp 62 millim.

Genus SPIRAMA.

Spirama, Guen Noct III, p 194 (1852). Hypopyra, Guen Noct III, p 198 Enmonodia, Wlk Cat xiv, p 1832 Maxula, Wlk Cat xxxIII, p 1096 (1865)

Type, S retorta, Linn

Range Japan, China, Chusan, throughout India, Ceylon, and

Burma, Andamans, Borneo, Java

Differs from Ommatophora in the antennæ usually being minutely fasciculate in male, the tibiæ not hairy, and the mid tibiæ spined

SPIRAMA 553

SECT I (Spirama) Fore wing with the costa arched towards apex, which is nearly rectangular, male with a fold on inner area of hind wing, containing an erectile ridge of very long hair, antennæ fasciculate

Spirama retorta, Ciam Pap Exot 11, pl 116, F; C & S
no 2501
Noctua spiralis, Fabr Sp Ins 11, p 211.
Speiredonia helicina, Hubn Zutr iii, 14, figs 437, 438, C & S
no 2559
Spirama suffumosa, Guen Noct 111, p 195
Spirama triloba, Guen Noct 111, p 197, C & S no 2562
Hypopyra mollis, Guen Noct 111, p 198
Spirama remota, Feld. Sitzb Akad Wiss Wien, M N Cl xlin,
p 43
Erebus chemista, Koll Hügel's Kaschmir, 1v, p 475
Spiramia cohærens, Wik Cat xiv, p 1321, C & S no 2558
Spirama simplicior, Butl Trans Ent Soc 1881, p 198
Spirama modesta, Moore, Lep Ath p 168, C & S no 2560
Spirama rosacea, Buil Ill Het vii, p 78, pl 132, figs 9-10
Spirama confusa, Butl Ill Het vii, p 78, pl 133, figs 6-8
Spiramia indenta, Hmpsn Ill Het vii, p 89, pl 147, figs 20-21

d Head and collar dark chestnut-brown, thorax paler with dark bands, abdomen crimson with triangular black dorsal patches Wings fuscous brown. Fore wing with the costal and outer areas more or less suffused with purplish and sometimes with an olive tinge, an antemedial line excurved below costa, then oblique to

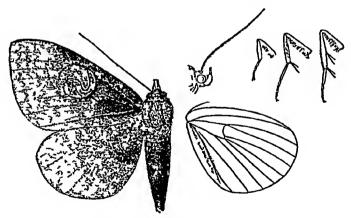


Fig 314 - Spirama retorta, &

unner margin, a large 'inverted-comma' mark beyond end of cell, with ochreous and black edges and some white on inner edge of 'tail,' the centre fuscous-black, a postmedial curved line passing round the stigma or interrupted by it, another postmedial line excurved below costs and slightly sinuous, two crenuate submarginal lines and two more prominent lines within the

maigin Hind wing with indistinct antemedial, medial, and traces of two postmedial and a submarginal line Underside suffused with dull red and having two medial lines and one postmedial to

each wing

The ground-colour ochreous Fore wing with the stigma larger Hind wing with the markings prominent, two antemedial lines, an ochreous submarginal line and two crenulate black lines inside the margin Underside orange-scarlet, each wing with cell-spot, medial, postmedial, and submarginal lines, and

series of lunules inside the margin

The form helicina is more brightly coloured, female with the ochreous submarginal line of hind wing crenulate Indenta has the markings not prominent, the stigma reduced in size and with two indentations in its outer edge, male with the thorax pale, the fore wing suffused with olive and vinous, female with the sub-marginal line of hind wing not crenulate Triloba has the head of the stigma reduced to three grey spots, often with black centres, male with the thorax pale and suffused with vinous and olive. female ochreous, with a purplish or, in the form rosacea, bright pink tinge, all the lines indistinct

Hab Japan, China, Chusan, throughout India, Ceylon, and Burma, Andamans, Java Exp, 3 64-76, 2 66-88 millim

SECT II Fore wing with the costa straighter towards apex, which is more or less acute and produced, male with no fold or long hair on inner area of hind wing

A Male with the antennæ minutely fasciculate

- a (Hypopyra) Male with an erectile tuft of long hair from femoro-tibial joint of fore legs, the tibiæ and hind tarsi not fringed with long hair, nor the hind wing clothed with long woolly hair on underside
- 2630 Spirama vespertilio, Fabr Mant Ins 11, p 136, C & S Hypopyra shiva, Guen Noct III, p 199, C & S no 2570 Hypopyra feniseca, Guen Noct III, p 200, C & S no 2564 Hypopyra ossigera, Guen Noct III, p 201, C & S no 2565 Hypopyra extricaus, Will Cat xiv, p 1328, C & S no 2563 A Hypopyra pandia, Feld Reis Nov pl 115, fig 12, C & S Hypopyra pallida, Moore, P Z S 1883, p 26, Lep Ceyl III, pl 166, figs 1, 1 a, C & S no 2566 Hypopyra distans, Moore, Lep Ath p 169, C & S no 2563

Differs from retorta in the abdomen being crimson, with the dorsal area grey or brown to near extremity Fore wing with the stigma never more developed than in the form indenta and usually reduced to spots, or to two spots on discocellulars, or altogether absent, the outer postmedial line of fore wing and the medial and submarginal lines of hind wing crenulate

The darkest form is vespertilio, which has the male dark brown, the costal and outer areas of fore wing suffused with grey and olive, the stigma most developed, female much paler and greyer Feniseca has the male grey suffused with vinous red, the stigma much reduced or absent, there is often some white on the crenulate submarginal line of both wings, in a Bornean specimen the ground-colour is lilacine grey the female is paler and greyer, almost white in the form extricans Shiva has an othreous tinge in both sexes

Hab Japan, China, thoughout India, Ceylon, and Burma, Andamans, Borneo Eup, & 74-90, Q 72-104 millim

- b (Enmonodia) Male with the tibic and hind tarsi fringed with very long hair, no erectile tuft on fore tibia, the underside of hind wing clothed with long woolly hair
- 2631 Spirama pudens, Wll. Cat xiv, p 1329, C & S no 2569 Enmonodia hypopyroides, Wll. Cat xiv, p 1333 Hypopyra persimilis, Moore, P Z S 1877, p 608, C & S no 2568

Differs from the form feniseca in the stigma of the fore wing consisting of a large brown spot beyond the lower angle of cell, which may be reduced to three spots or be absent in the form persimilis, the two postmedial lines evenly curved, the outer crenulate, the inner waved from costa to vein 4

Hab Japan, Andamans, Sumatra, Borneo, Nias Exp 92-

106 millim

- B (Maxula) Antennæ of male with bristles and cilia, fore and hind tibiæ sometimes spined
- 2632 Spirama unistrigata, Guen Noct 111, p 201, C & S no 2571 Maxula idonea, Wik Cat xxxiii, p 1096 Angerona poeusaria, Wik Cat xx, p 243
- 3 Differs from vespertilio in being grey speckled with brown, the head dark. Fore wing with curved and waved antemedial, medial, and postmedial lines, the stigma sometimes well developed, usually reduced to spots or obsolete, a pale straight submarginal line to both wings.

2 paler and greyer

A Burmese male has the ground-colour lilacine grey, the female yellow suffused with grey and vinous red, a Ceylon male is purplish with a reddish tinge and some yellow on postmedial line of fore wing

Hab Sikhim, Assam, Burma, Trincomali Exp, & 52-58,

♀ **54**–68 mıllım

Genus MINIODES.

Miniodes, Guen Noct 111, p 119 (1852)

Type, M discolor, Guen, from Africa. Hab W. Africa, N E India

Antennæ thickened in male, palpi with the 2nd joint somewhat broad and reaching just above vertex of head, the 3rd long, blunt. and oblique, thorax smoothly scaled, abdomen clothed with long hair on dorsum, legs smoothly scaled, the tibiæ without spines Fore wing with the costa highly arched, the apex slightly produced, the inner and outer margins forming a continuous curve Hind wing clothed with long hair at base, the apex nearly quadrate

In the typical section (Sect I) the antennæ have long bristles

and cilia in male

SECT II Antennæ of male simple, fore wing with the apex produced to two slight projections.

2633 Miniodes ornata, Moore, Lep Ath p 166, C & S no 2488

Head and thorax fulyous and dark red-brown, abdomen bluish black Fore wing chestnut, thickly irrorated with dark brown, the

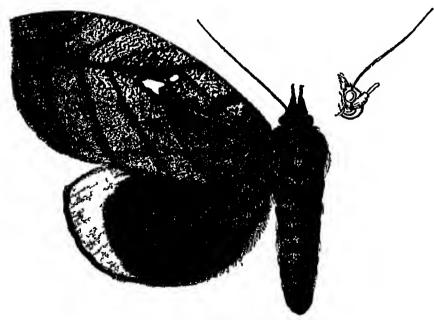


Fig 315 -Miniodes ornata, d

costal area orange-fulvous to beyond the cell, six indistinct angled dark lines, a white black-ringed spot at upper angle of cell, with a black fascia from it to outer margin below apex, a large white black-edged lunule at lower angle of cell Hind wing blue-black, with the apical area orange, narrowing to vein 2, the cilia dark Hab Sikhim, Khásis Exp 140 millim

Genus PHYLLODES

Phyllodes, Bossd Voy Astrolabe, Lép p 246 (1832)

Type, P conspicillator, Cram, from Amboina

Range N E India, Burma, Andamans, Malayan region, Philippines, New Guinea and neighbouring groups of islands

Differs from Miniodes in the tibiæ being heavily spined, antennæ thickened and simple, the fore wing narrower, the inner and outer margins quite evenly curved

Larvæ with four pairs of abdominal prolegs

SECT I Palpi with the 3rd joint minute, fore wing with the apex produced to a long blunt projection

2634 Phyllodes ustulata, Westw Cab Or Ent p 57, pl 28, fig 1, C & S no 2490
Phyllodes despicillator, Guen Noct 111, p 122

Head, thorax, and abdomen fuscous, the palpi chestnut Fore wing golden brown, the inner area fuscous, the basal costal area chestnut striated with rufous, a large rufous lunule with dark edges at end of cell, a rufous patch beyond the cell and spot below vein 2, fuscous fasciæ on and below costa towards apex, striæ of raised scales on the veins below the cell and in interno-median interspace. Hind wing fuscous brown, the apical area orange Hab Sikhim. Sylhet Exp-132 millim

SECT II Palpi with the 2nd joint fringed with very long hair in front, producing a rounded form, the 3rd long, oblique, and knobbed at extremity, fore wing with the apex produced to an acute point

2635 Phyllodes eyndhovn, Voll Tyd v Ent 1858, 11, p 86, pl 6
Phyllodes fasciata, Moore, P Z S 1867, p 69, C & S no 2486
Phyllodes semilinea, Wlk Journ Linn Soc vii, p 176

Head and thorax pale red-brown, the basal joint of antennæ silver, silver spots at base of fore and mid tibiæ. Fore wing pale golden olive, with traces of six angulated lines, the orbicular a black speck, a sinuous ochreous mark on discocellulars, with double rufous edge, an oblique dark streak from apex to below the discocellular mark. Hind wing brownish fuscous, with broad, irregularly waved, orange medial band with diffused black on each side of it, underside with a large orange lunule on a black patch below lower angle of cell

Hab Sikhim, Assam, Borneo Eap 136 millim

2636 Phyllodes consobring, Wester Cab Or Ent p 57, pl 28, fig 2, C & S no 2485
Phyllodes perspicillator, Guen Noct 111, p 120
Phyllodes maligera, Butl Ent Mo Mag xx, p 138, C & S no 2487

Phyllodes roseigera, Butl P Z S 1883, p 164, C & S no 2489

Head and thorax fuscous, with a purple bloom, abdomen blue-black. Fore wing fuscous brown, with a purplish gloss and irrorated with ochreous scales, the orbicular a brown speck, an S-shaped brown mark on discocellulars, its centre outlined with red-brown, its edges brown, and two white marks on it near its lower angle, an oblique ochreous fascia from apex to below angle of cell, whence it is bent down to inner margin, a large grey-brown patch usually present between the fascia and outer angle, with pale strize on it. Hind wing blue-black, a large crimson patch with white centre at anal angle. Underside striated with white and with whitish between the veins of the fore wing

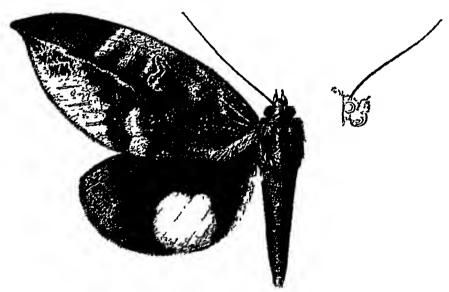


Fig 316 -Phylodes consobrina, &

The form *roseigera*, from the Andamans, has haidly a trace of white on the crimson patch

white on the crimson patch

Hab Throughout NE India, Burma, Andamans, Ceylon

Exp 124-142 millim

Genus OPHIDERES

Ophideres, Bossd Faun Ent Madag, Lep p 99 (1833) Trisophaes, Hubn Verz p 263 (1818), non desci Mænas, Hubn Verz p 264 Rhytia, Hubn Verz p 264 Othreis, Hubn Verz p 264 Corycia, Hubn Veiz p 265 Adris, Moore, Tians Z S xi, p 69 (1881) Khadira, Moore, Trans Z S xi, p 69 Purbia, Moore, Trans Z S xi, p 70 Argadesa, Moore, Trans Z S xi, p 74

Type, O fullonica, Linn

Range Throughout the tropical zone

Palpi with the 2nd joint thickened and reaching vertex of head, the 3rd blunt and naked, antennæ minutely ciliated in male, metathorax with slight tufts, abdoinen clothed with coarse hair on dorsum, tibiæ not spined and clothed with long hair. Fore wing with the costa arched, the apex acute, the inner margin lobed and with tufts of hair near base and at outer angle.

Larvæ with four pairs of abdominal prolegs, the first pair rudi-

mentary

SECT I (Mænas) Palpi with the 2nd joint very short and not spatulate Fore wing with the outer margin straight, the clia non-crenulate

2637 Ophideres salaminia, Fabr Ent Syst in, 2, p 17, Moore, Lep Ceyl in, pl 161, fig 1, a, b (larva), C & S no 2478

Head and collar plum-colour, thorax green, the metathoracic tufts and abdomen orange. Fore wing golden green, a broad cream-coloured costal fascia from near base of inner margin to apex, striated with pale red and turning to green at costa, a cream-coloured marginal band, a curved red streak below vein 2. Hind wing orange, with large black lumile beyond lower angle of cell, a black marginal band with cilial whitish spots from costa to vein 2. Underside of fore wing fuscous, orange at base, and with broad whitish postmedial band not reaching costa or inner margin, the cilia whitish

Larva dark purplish grey with a few whitish specks, the 4th, 5th, and 6th somites with small yellowish subdorsal spots, beneath which, on 5th and 6th somites, is a red-ringed black occllus with whitish pupil, 11th somite with a conical reddish dorsal tubercle Before changing to pupa the colour becomes olive-brown with dark specks, a pale lateral fascia on medial somites and purplish fascia from the tubercle to last abdominal proleg Food-plant, Menispermum

Hab Madagascar, Formosa, throughout the Oriental region to Australia and Fiji Eip 80–104 millim

SECT II Palpi with the 3rd joint long and spatulate at extremity

- A For e wing with the apex not produced, the outer margin rounded a Fore wing with the cilia non-cienulate
- 2638 Ophideres ancilla, Cram Pap Erot 11, pl 149, F, Moore, Lep Ceyl 111 pl 161, fig 3, a, b (larva), C & S no 2475

Phalæna strigata, Donov Ins Ind pl 54, fig 2 Othreis homœna, Hubn Verz p 264 Ophideres bilineosa, Wik Cat xiii, p 1227

d Head and thorax fulvous brown, the collar, metathoracic tufts, and tibis with an orange tinge, head and collar with a purple bloom, abdomen orange. Fore wing olive-green, suffused with purplish red-brown and striated with rufous, dark subbasal and antemedial lines and slightly curved postmedial line, traces of some waved medial lines, an indistinct reniform stigma and dentate submarginal line. Hind wing orange, with large black lunule beyond lower angle of cell, a submarginal band with waved edges from costa to vein 2. Underside of fore wing with the postmedial band orange.

P Fore wing much darker, with deep purple and chocolate tones, a broad verditer-green fascia below the cell, sending bars to inner margin near base and outer angle, and conjoined to the green reni-

form spot

Larva purplish brown, with numerous blue specks and large yellow patches on 3rd, 4th, and 5th somites, the two latter forming ocelli with yellow iris and azure-blue black-edged pupil, 8th and 9th somites with irregular yellow patches, a dorsal tubercle on 11th somite. Food-plant, Menispermum. Pupa orange, burnished, and roughened.

Hab Throughout India, Ceylon, and Burma. Exp 80 millim.

b (Ophideres). Fore wing with the cilia non-crenulate in male, crenulate in female

2639 Ophideres fullonica, Linn Syst Nat 1, 2, p 812, Moore, Trans Z S x1, p 64, pl 12, figs 1, 1 a (larva), C & S no 2477.

Noctua dioscoriæ, Fabr Sp Ins 11, p 212

Phalæna pomona, Cram Pap Evot. 1, pl 77, C

Phalæna cajeta, Cram Pap Exot 1, pl 30, A, B, C, C & S no 2476

Ophideres multiscripta, Wlk Cat x11, p 1226

Head and thorax red-brown suffused with plum-colour, abdomen orange Fore wing red-brown, usually with a greenish tinge and irrorated with dark specks, an oblique antemedial line, generally dark and indistinct, but sometimes pale and prominent, the reniform indistinct, a curved postmedial line, almost always met by an oblique streak from apex Hind wing orange, with a large black lunule beyond lower angle of cell, a marginal black band with chall pale spots from costa to vein 2 Underside of fore wing with the postmedial band orange

2 Fore wing much more variegated and striated with dark redbrown, the remiform dark and sending a spur along median nervure to below the orbicular speck, a triangular white mark usually

present on the postmedial line below vein 3

Larva 11th somite dilated and surmounted by a tubercle, colour dark purplish brown, the dorsum brown from 6th to 11th somites,

legs red, spiracular scarlet patches largest posteriorly and with some irregular white markings round them, on somite 9 in the form of an oblique white bar, a yellow subdorsal mark on 4th somite,

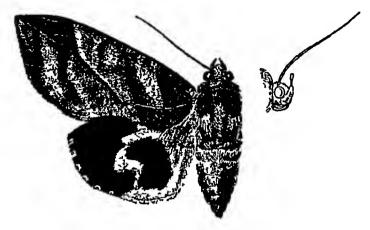


Fig 317 -Ophideres fullonica, of

black ocelli with yellow iris and white pupils on 5th and 6th somites, and two yellow patches on 11th somite

Hab Africa, throughout the Oriental region to New Guinea and Australia Exp, of 80-94, Q 90-110 millim

- c (Argadesa) Fore wing with the cilia crenulate in both sexes
- 2640 Ophideres materna, Linn Syst Nat 1, 2, p 840. Moore, Lep Ceyl 111, pl 161, fig 2, C & S no 2474 Noctua hybrida, Fabr Syst Ent p 593
- d Head and thorax greenish grey, abdomen orange Fore wing greenish grey with very numerous faint striated reddish lines, three rufous spots at end of cell, a dark oblique line from near apex to centre of inner margin, a silvery patch on vein 1 and another below lower angle of cell, a marginal black band with crenulate inner edge, a series of white cilial spots. Underside orange, fore wing with the costa and apical area blotched with rufous, oblique postmedial and subapical black bands, hind wing with the apical area blotched with rufous, a black spot on costa, another beyond lower angle of cell, a marginal black band from vein 5 to anal angle

Q with the fore wing much more prominently striated with rufous, the silvery patches below and beyond cell very large and conjoined, crossed by white streaks above vein 2 and beyond cell

Hab Throughout India, Ceylon, and Burma, Andamans, Java Exp 96 millim

VOL II

B (Khadira) Fore wing with the aper produced to a rounded lobe

2641 Ophideres aurantia, Moore, P Z S 1877, p 607, id Trans Z S x1, p 69, pl 13, fig 4, C & S no 2481
Adris rutilus, Moore, Trans Z S x1, p 70, C & S no 2482

Head and thorax ferruginous, suffused with plum-colour, abdomen orange. Fore wing ferruginous, with dark striæ and slight purple bloom, the veins speckled with blue, the reniform green and indistinct, a dark line from apex to centre of inner margin, sometimes with green patches beyond it. Hind wing orange, with a large black lunule beyond lower angle of cell, a submarginal patch between veins 1 and 2. Underside orange, fore wing with black mark below angle of cell and beyond the cell between veins 3 and 5, hind wing with the lunule and patch of upperside, or the latter sometimes wanting

Hab Ceylon, Andamans, Borneo Exp 108-120 millim

SECT III Palpi with the 3rd joint highly spatulate at extremity

A (Adris) Fore wing highly produced at apex, the outer margin very obliquely rounded

2642 Ophideres tyrannus, Guen Noct 111, p 110, Moore, Trans Z S x1, p 69, pl 13, fig 5, C & S no 2483

Head and thorax dark red-brown with plum-coloured bloom, some blue on 3rd joint of palpi and sides of thorax, fore and mid tibize with a silvery spot near base, tarsi spotted with white, abdomen orange. Fore wing chestnut-red or green, much suffused and striated with rufous, an antemedial oblique rufous line, the remiform and orbicular green, a line from apex to centre of inner margin, often outlined with green and sometimes with pale patches inside it, the outer area sometimes with pale patches towards outer angle, a blue speck near base and others on the veins. Hind wing orange, with very large black lunule beyond lower angle of cell, a black submarginal band with waved edges from costa to vein 2. Underside orange, fore wing with black medial and postmedial bands, hind wing with the lunule and a postmedial band

A Sikhim specimen has the distance between the tufts on lobe and at outer angle of fore wing longer, underside with the black

postmedial band conjoined to black marginal suffusion

Hab Japan, China, throughout the Himalayas, Calcutta Exp 110-120 millim

- B (Rhytia) Fore wing not produced at apex, the outer margin rounded
- 2643 Ophideres hypermnestra, Cram Pap Exot 1v, pl 323, A, B, C & S no 2480
 - d Head and thorax yellow-green, palpi, collar, and tegulæ

marked with grey, abdomen orange, the anal tuft brown Fore wing yellow-green, with dark striæ, some grey patches on inner and outer areas, an oblique rufous antemedial line, a very oblique rufous line from the costa before apex to centre of inner margin and curved below the costa, where it is joined by a dark streak from the apex. Hind wing orange, with a black spot at lower angle of cell and another above anal angle, the marginal area black from apex to vein 2 and with marginal and cilial white spots, its inner edge waved. Underside of fore wing with the postmedial band white

2 with large and small white rufous-striated patches and spots on fore wing below and beyond cell, at outer angle, and below apex

Hab Throughout India, Ceylon, and Burma Exp 88 millim

2644 Ophideres cocalus, Cram Pap Exot 11, pl 134, B, C & S no 2479

Noctua maculata, Weber, Observ Ent p 111 Ophideres plana, Will Cat xiii, p 1226

Differs from hypermnestra in having no black spot on hind wing, the black marginal band with nearly even inner edge and extending to anal angle.

Hab "Coromandel", Sylhet, Java Exp 86 millim

2645 Ophideres discrepans, Wik Cat xiii, p 1227, Moore, Trans Z S xi, p. 71, pl 14, fig 1, C & S no 2484 Ophideres archon, Feld Reis Nov pl 113, fig 3

Head and thorax grey-brown, with a purplish bloom, abdomen orange Fore wing purplish grey-brown, irrorated with fuscous, traces of medial, postmedial, and submarginal lines, green patches at base, middle, and end of cell, two beyond its lower angle with white spots on them, and some on the submarginal line. Hind wing orange, with large black lunule beyond end of cell, a broad black marginal band from costa to vein 2, the cilia chequered black and white

Hab Assam, Siam, Singapore, Java Exp 96 millim

Genus CALPE.

Calpe, Treitsche, Schmett Eur v, pt 11, p 138 (1825) Calyptra, Ochs Schmett Eur 1v, p 78 (1816), præocc Oræsia, Guen Noct 11, p 362 (1852) Culasta, Mome, P Z S 1881, p 376 Hypocalpe, Butl P Z S 1883, p 157

Type, C capucina, Esp, from Europe and Japan. Range. All regions except the Australian

Palpi porrect, the 2nd and 3rd joints fringed below with very long hair, the frontal tuft large, metathorax with very slight tufts, abdomen with coarse hair on dorsum, tibis without spines 2 o 2

and but slightly harry Fore wing with the costa slightly arched, the apex acute, the outer margin excurved at vein 3, the inner margin lobed near base and at outer angle

Larvæ with 3 pairs of abdominal prolegs

SECT I (Calpe) Antennæ of male bipectinate, the branches short

2646 Calpe ophideroides, Guen Noct 11, p 374, C & S no 1221

Head and thorax red-brown, irrorated with grey, abdomen orange-yellow. Fore wing red-brown suffused with grey, and with numerous fine pale strim, traces of subbasal, antemedial, and medial lines, black specks at the two angles of cell, a straight rufous line from apex to inner margin just beyond middle. Hind wing orange-yellow. Underside orange-yellow, the outer area of fore wing brownish fuscous

Hab NW Himalayas, Nepal, Singapore. Exp 70 millim

2647 Calpe bicolor, Moore, P Z S 1883, p 19, Waterh Aid, n, pl 150, fig 4, C & S no 1218

Differs from ophideroides in the fore wing being more produced at apex, and with a more silvery sheen, the subbasal, antemedial, and medial lines more distinct, the cilia chestnut. Underside with the outer area of fore wing orange-yellow

Hab Kángra Exp 56 millim

2648 Calpe fasciata, Moore, Lep Ath p 151, C & S no 1219

Differs from bicolor in being without the reddish tinge, the hind wing and underside brown, the outer angle of fore wing less hooked

Hab Simla, Kángra, Sikhim Exp. 54 millim.

2649 Calpe orthograpta, Butl Ill Het vi, p 25, pl 107, fig 2, C & S no 1222

Differs from fascuata in having the 3rd joint of palpi produced to a point. Fore wing darker golden blown, the costa whitish, a whitish spot on the indistinct submarginal line. Hind wing much darker, underside with dark lunule at end of cell and post-medial line.

Hab Sikhim Exp 66 millim

- SECT II (Orana) Antenne of male unipectinate, palpi with the 31d joint produced to a point, fore wing with the outer margin angled at vein 4
- 2650 Calpe emarginata, Fabr Ent Syst m, 2, p 82, Moore, Lep Ceyl m, pl 153, figs 2, 2 a (larva), C & S no 1225
 Oræsia alliciens, Will. Cat xm, p 945
 Oræsia tentans, Will. Cat xm, p 945
 Oræsia metallescens, Guen Noct n, p 364

CALPE. 565

d Head and collar fiery orange, thorax red-brown, abdomen fuscous Fore wing red-brown suffused with purplish, numerous



Fig 318
Calpe emarginata, d 1

indistinct slightly waved oblique lines, a dark streak on median nervure, an oblique double line from apex to inner margin beyond middle, filled in with pale near apex, the area beyond it suffused with gold. Hind wing ochreous white, suffused with fuscous towards outer margin.

Prore wing much more variegated, a diffused chocolate patch below middle of cell, a white streak on vein 2, abdomen and hind wing fuscous

Larva Dark violet-brown, with a subdorsal series of scarlet and yellow spots, and sublateral series of white dots

 $egin{array}{lll} \emph{Hab} & ext{China} & ext{throughout India, Ceylon, and Burma} & \emph{Erp} \\ 42 & ext{millim} & ext{} \end{array}$

2651 Calpe rectistria, Guen Noct 11, p 363, C & S no 1227

3 Differs from emarquata in the fore wing being considerably longer and more produced at apex, the abdomen, hind wing, and underside much paler

Hab Dharmsala, Sikhim, Sylhet Exp 52 millim

SECT III (Culasta) Antennæ of male minutely ciliated

A Fore wing with the outer margin angled

2652 Calpe provocans, Wlk Cat x11, p 943, C & S no 1226 Oræsia argyrosigna, Moore, Lep Ceyl 111, p 77, pl 153, fig 4, C & S no 1224

doubt, fore wing with a silver streak on vein 2 before the oblique line, a silver streak at apex and line on outer margin below apex

♀ darker

Hab S Africa, Sylhet, Nilgiris, Ceylon Exp 48 millim

B Fore wing with the outer margin rounded

2653 Calpe minuticornis, Guen Noct 11, p 374, Moore, Lep Ceyr 111, pl 153, figs 3, 3 a (larva), C & S no 1220

Head and thorax pale red-brown, thickly irrorated with grey, abdomen pale fuscous. Fore wing paler red-brown, with a silvery sheen and numerous fine pale strie, traces of subbasal, antemedial, and medial oblique lines, a rufous line from apex to inner margin beyond middle, a series of submarginal specks. Hind wing pale fuscous, the cilia whitish

Differs from capucina only in the antennæ not being pectinated;

a greyer race is found in Manipur .

Larva olive-grey, with a subdorsal series of black-boidered yellow spots, and a sublateral series of specks enclosed from 4th somite by a pinkish-bordered black line, head ochreous, with paired lateral black spots, legs pale pink Food-plant, Cocculus macrocarpus

Hab Throughout India and Ceylon, Java Exp 50 millim.

2654. Calpe indecisa, Moore, P Z S 1881, p 377, C & S no 1232

Fore wing with the lobe and hook on inner margin slight and

with hardly a trace of the tufts of hair

Head yellow, irrorated with pink, thorax grey, abdomen pale fuscous. Fore wing grey, with numerous indistinct fuscous specks and oblique lines, the most distinct being two from near apex, the outer with an ochreous streak beyond it, a marginal series of black specks. Hind wing whitish, suffused with fuscous towards outer margin.

Hab Bombay. Exp 38 millim.

Genus PSEUDOCALPE, nov.

Type, P angulifera, Moore

Range S Africa, Aden, NW and W India, Nilgiris

Palpi slender and upturned, reaching vertex of head, thorax and abdomen smoothly scaled, tibiæ nearly naked. Fore wing with the costa nearly straight, the apex acute, the outer margin rounded, the inner margin lobed and with tufts of hair near base and at outer angle.

SECT I Antennæ of male serrate and fasciculated.

Pseudocalpe angulifera, Moore, P Z S 1881, p 373, C & S no 1853
Dabarita icterica, Swinh P Z S 1886, p 439, pl. 40, fig 8, C & S no 1117
Anthophila innubila, Swinh P Z S 1886, p 447, C & S no 1885
Calpe bifasciata, Hmpsn III Het viii, p 61



Fig 319 Pseudocalpe angulifera, & 1

Pale reddish ochreous or brown Fore wing with numerous dark striæ; an oblique ochreous line from middle of costa to inner margin near base, a postmedial line angled below the costa, then oblique to middle of inner margin. Hind wing semihyaline with an ochreous tinge.

Hab W India, Nilgiris Eup

23-28 millim.

SECT II Antennæ of male bipectinate to three fourths length

2656 Pseudocalpe vagabunda, Swinh P Z S 1884, p 519, pl 47, fig 5, C & S no 1228

Brownish ochreous Fore wing irrorated with dark specks, an indistinct oblique diffused dark medial line, a sinuous ochreous line from outer margin below apex to inner margin beyond middle Hind wing ochreous white

Hab Aden, Karáchi Eap 30 millim

Genus ARSACIA

Arsacia, Wik Cat xxxiv, p 1259 (1865)

Type, A saturatalis, Wlk

Range Throughout India, Ceylon, and Burma, Penang, Borneo Palpi poriect, the 2nd joint thickly scaled, the 3rd minute and acute, no frontal tuft, antennæ almost simple in male, thorax and abdomen smoothly scaled, the tibiæ naked Fore wing with the apex quadrate, the outer margin rounded the inner margin lobed and with slight tufts of hair near base and at outer angle, veins 7, 8, 9, 10 stalked

2657 Arsacia saturatalis, Wth Cat xxxiv, p 1260, Moore, Lep Ceyl iii, pl 152, fig 8, C & S no 1231

Alsacia fiontilufa, Swinh P Z S 1885, p, 301, pl 20, fig 12, C & S no 1230

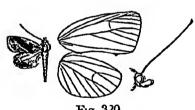


Fig 320
Arsacia saturatalis, & 1

Head and thorax rufous, abdomen fuscous Fore wing bright chestnut, the costa suffused with pink, an oblique line from the apex to middle of inner margin, the area beyond it suffused with pink and with indistinct submarginal and marginal series of patches of dark scales Hind wing dark fuscous

The form fronts ufa is much darker Hab Punjab, Bombay, Nilgiris, Ceylon, Penang, Borneo Eup 18 millim

Genus PLUSIA

Plusia, Ochs Schmett Lur iv, p 89 (1816) Euchaleia, Hubn Verz p 250 (1818) Polychrysia, Hubn Verz p 251

Type, P chrysitis, Linn, from Europe Range Universally distributed

Palpi uptuined, the 2nd joint reaching vertex of head, the antennæ of male ciliated, thorax with a very large spreading tuft on the vertex, abdomen with three large dorsal tufts on basal

segments, and lateral and anal tufts more or less strongly developed in male Fore wing hooked at outer angle.

Larvæ with 2 pairs of abdominal prolegs

SECT. I (Plusia) Palpi with the 3rd joint short, hind femora of male not tufted with long hair

2658 Plusia limbirena, Guen Noct 11, p 350, Moore, Lep Ceyl 111, pl 152, fig 5, C & S no 2165
Plusia confusa, Moore, Lep Ath p 149, C & S no 2158
Plusia gamma, Koll (nec Linn) Hugel's Kaschmi, iv, p 481

Head and thorax clothed with grey and black scales, abdomen pale with the dorsal tufts dark Fore wing fuscous, with a cupreous tinge, ill-defined darker medial and submarginal patches, the minutely waved double subbasal and antemedial lines with silvery specks on them, the orbicular and reniform small, indistinct, and with pinkish edges, a prominent silver Y-mark below the cell. the minutely waved double postmedial line angled inwards above vein 1, traces of an irregularly sinuous submarginal line, a small pinkish patch on centre of outer margin, a marginal series of black specks Hind wing pale at base, the outer area suffused with fuscous, cilia pale, underside with indistinct lunule at end of cell and waved postmedial line

Hab St Helena, S Africa, Madagascar, Aden, NW Hima-

layas, Sikhim, Nilgiris, Ceylon Evp 42 millim

2659 Plusia jessica, Butl A M N H (5) 1, p 201, 1878, id Ill Het 111, pl 46, fig 6
Plusia serena, Butl A M N H (5) 1v, p 368, 1879

Differs from hmbirena in the head, thorax, and fore wing being much greyer Fore wing with the lines less waved and more oblique, the stigma a gamma-maik Hind wing darker fuscous Hab Japan, NW Himalayas Eup 36 millim

2660 Plusia furcifera, Will Cat xii, p 927, C & S no 2177 (part) Plusia mutans, Will Cut axxiii, p 839, Hmpsn Ill Het ix, pl 162, fig 5, C & S no 2166

Differs from limbirena in the head, thorax, and fore wing being pale brownish with a golden tinge and irrorated with dark brown, the Y-mark much less prominent, its arms narrow and obsolescent, the small patch on the outer margin pale. Hind wing almost uniform fuscous, the cilia pale

Hab NW Himalayas, Poona; Nilgiis. Exp 36 millim.

2661 Plusia signata, Fabr Ent Syst 111, 2, p 81, C & S no 2177 Plusia diminuta, Wik Cat xxxiii, p 837

Differs from limbirena in the head, thorax, and fore wing being pale reddish brown, abdomen paler, with the dorsal tufts small PLUSIA 569

Fore wing with a cupreous tinge, the subbasal, ante- and post-medial lines more prominent and less waved, some black specks beyond the subbasal line, the tail of the Y-mark detached from the arms, the patch and black specks on outer margin absent Hind wing nearly uniform pale or dark fuscous

Hab W Africa, Ceylon Java, Fig. Esp 32 millim

2662 Plusia nigriluna, Wil Cat xii, p 931, Moore, Lep Ceyt iii, pl 152, figs 2, 2 a (larva), C & S no 2167

Differs from signata in the head and thorax being dark purplish grey, some of the scales of the thoracic tuft orange, abdomen dark fuscous, with pale lateral hairs at base, the dorsal tufts dark. Fore wing dark purplish grey with golden patches near base, on median area, and at outer angle, the Y-mark large and prominent, the arms almost filled in with silver, which has a slight golden tinge, the postmedial line more crenulate, the marginal patch and specks present. Hind wing dark fuscous, with the cilia pale

Larva olive-green, darkest beneath, with a few fine dorsal hairs, the somites spotted with black Pupa gieen, with dorsal segmental brown streaks

Hab Sikhim, Ceylon E_{1p} 32 millim

Plusia eriosoma, Doubl Dieffenbach's New Zealand, 11, p 285
Plusia verticillata, Guen Noct 11, p 344, Moore, Lep Ceyl 111,
pl 152, fig 6, C & S no 2180
Plusia rogationis, Guen Noct 11, p 344
Plusia includent, Wilk Cat xii, p 914
Plusia hamifera, Wilk Cat xii, p 917
Plusia acuta, Wilk Cat xii, p 922
Plusia integra, Wilk Cat xii, p 931 C & S no 2163
Plusia adjuncta, Wilk Cat xixiii, p 840
Plusia dyaus, Grote, Can Ent xii, p 202

Differs from signata in the head, thorax, and fore wing having a reddish tinge, abdomen with the lateral and anal tutts often black in the male. Fore wing with much more gilding on the basal, medial, and outer areas, the antemedial line more oblique,

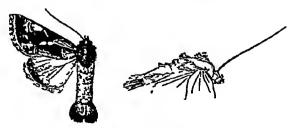


Fig 321 -Plusia criosoma, &

the postmedial more oblique and sinuous, the Y-mark large, prominent, and golden, the aims often filled in with golden and occasionally joined to the tail

Some specimens are much darker than others

Larva green, the back palest, with indistinct dorsal and lateral

pale lines Food-plant, Ficus

Hab N and S America, Wadelai, Aden, Japan, China, throughout the Indian, Malayan, and Australasian regions Eip 42 millim

2664 Plusia nigrisigna, Wik Cat xii, p 928, Butl Ill Het xi, pl 110, fig 4, C & S no 2168

Differs from crossoma in the lower arm of the Y-mark being nearly straight and almost touching the antemedial line, a small bright chestnut patch beyond the end of its tail, a sinuous golden mark on outer edge of remiform, with three black specks in its andulations

Some specimens are darker than others

Hab N W Provinces, the Himalayas from Simla to Sikhim Exp 40 millim

Plusia ni, Hubn Noct pl 58, fig 284
Plusia humilis, Wlk Cat xii, p 915
Plusia extrahena, Wlk Cat xii, p 929, C & S no 2161
Plusia significans, Wlk Cat xii, p 930, C & S no 2178

Differs from criosoma in the head and thorax being mingled grey and ferruginous, abdomen ochreous white, with the dorsal tufts ferruginous. Fore wing grey, without gilded areas, the subbasal, ante- and postmedial lines ferruginous and more waved, the orbicular and remiform ferruginous, the Y-mark more slender, with rufous centre, the submarginal line more prominent and dentate. Hind wing pale fuscous, the base pale, the cilia whitish

Hab San Domingo, Europe, St Vincent (Cape Verds), Aden Japan, China, NW India. Exp 38 millim

2666 Plusia purpureofusa, n sp

Differs from nignisigna in the head, thorax, and fore wing being suffused with purple. Fore wing with the lines red-brown, the antemedial line angled just below the costa, the stigma either small with the arms separate from the tail, or large and conjoined, the mark on discoccilialists with its outer edge slightly indented and the black specks minute, the postmedial line double, angled below costa, and not curved. The rufous mark beyond the tail of Y may be absent, and the golden suffusion on inner area and near apex slight.

Hab Sikhim, Bernardmyo, Burma Eip 40 millim Tipe in

coll Elwes

2667 Plusia obtusisigna, Will Cat xii, p 930, Moore, Lep Ceyl iii, pl 152, fig 1, 1 a (larva), C & S no 2169

Differs from nigrisigna in the head, thorax, and fore wing being

PLUSIA 571

whitish grey, the last with gilded patches above the Y-mark, which is white, with the tail joined to the arms, and on the submarginal line, an irregular black basal mark below median nervure, no sinuous black-speckled mark on outer edge of remiform

The Burmese specimen is large, with the tail of the Y-mark

separate from the arms

Lurva green with white dorsal lines, subdorsal streaks, and lateral dots, black dots on 4th to anal somites, medial prolegs pale red

Hab Poona, Nilgiris, Ceylon, Burma Exp 32-40 millim

2668 Plusia gutta, Guen Noct 11, p 346
Plusia albostriata, Biem Beitr Nord Chin p 18, no 97
Plusia argyrosigna, Moore, Lep Ath p 149, C & S no 2154

Differs from eriosoma in the head, thorax, and fore wing being purplish grey, the last with the medial area below the cell suffused with reddish brown, the antemedial line more silvery, the silvery Y-mark very large and filled in with silver, the arms joined to the tail, some silvery specks at angle of cell, the postmedial line straighter. Hind wing paler

In the Nilgiri specimen the Y-mark is narrow, the specks at end

of cell larger

Hab Europe Japan, China, Dharmsála, Nilgiris Exp 38 millim

2669 Plusia circumflexa, Linn Syst Nat 1,2,p 844, C & S no 2157 Plusia patefacta, Wik Cat xii, p 924, Hmpsn Ill Het viii, pl 149, fig 1

Head and thorax clothed with grey and brown hairs, abdomen brownish fuscous. Fore wing grey, clouded in parts with coppery fuscous, a waved silvery subbasal line, the antemedial line straight and oblique, obsolete from the costa to median nervure, where it is joined by the lower arm of the V-mark, which has no tail to it and is surrounded by some dark brown, the postmedial line oblique and almost straight, dentate below vein 2, the irregularly sinuous submarginal line black, with two indentations between the median nervules, fine marginal and cilial lines. Hind wing fuscous, the basal area palest, the cilia whitish, underside with cell-spot and postmedial line.

Hab Europe, Teneriffe, S Africa, Nilgiris Eap 40 millim

2670 Plusia permissa, Wik Cat xv, p 1786, C & S no 2173

d Differs from circumflexa in the head, thorax, and abdomen being red-brown, the anal tuft blackish. Fore wing much suffused with coppery red-brown, the ante- and postmedial lines more sinuous, the latter angled inwards below vein 2, the submarginal line obscured by the coppery patches. Hind wing reddish fuscous

Hab Canara Exp 36 millim

2671. Plusia daubei, Boisd Ind Méth p 159, C & S no 2159
Plusia ciliaiis, Will Cat xii, p 928, Butl Ill Het vi, pl 110,
fig 5, C & S no 2156
Plusia indicator, Wilk Cat xii, p 922

Differs from circumflea in being paler grey without the purplish tinge, and suffused with pale golden brown. Fore wing with the veins whitish, the ante- and postmedial lines more erect, the oibicular and reniform with white edges, the V-mark more elongate and separate from the antemedial line

The male has the lateral tufts on abdomen fulvous

Hab Europe, Senegal, Congo, Himalayas as far east as Sikhim Eip 34 millim

2672 Plusia lobifera, Moore, P Z S 1881, p 358, C & S no 1822

Head, thorax, and abdomen pale brownish fuscous the vertex of head white. Fore wing brownish white, the costal and central inner areas and the area beyond the cell fuscous-grey, a double waved antemedial line, indistinct except towards inner margin, an elongate claviform spot with black outline, an indistinct lumile on discocellulars, a double sinuous postmedial line, incurved below cell, series of black submarginal streaks and marginal specks, the clia fuscous intersected with white. Hind wing fuscous, with the clia white

Hab Bombay Erp 34 millim

2673 Plusia pyropia, Bull A M N H (5) 1v, p 367

Head orange-red; thorax red-brown, the tips of the scales white, abdomen pale brown, the dorsal tufts ruious. Fore wing grey-brown, the medial area below the cell and the whole outer area except the anal angle suffused with golden copper, the ante-and postmedial lines nearly straight, the former obsolete above median nervure, the upper part of the stigma 'crochet'-shaped and not joined to the round spot, an irregularly waved submarginal line. Hind wing brownish fuscous

Hab Japan, Dharmsála, Sikhim, Nágas Erp 34 millim

2674 Plusia ornatissima, Will Cat v, p 1786, C & S no 2171 Plusia chalsytis, Koll (nec Treit) Hugel's Kaschmu, iv, p 482

Differs from pyropia in the metallic markings being more brassy, those near outer margin less diffused, the costal portion of the subbasal line silvery, the antemedial line angled below median nervure, the two portions of the Y-mark very large, prominent and silvery, a golden speck on each side of the orbicular and leniform, the postmedial line more elect. Hind wing dark tuscous

Hab Japan, China, NW Himalayas, Sikhim Erp 40 millim

PLUSIA 573

2675 Plusia pannosa, Moore, Lep Ath p 149, C & S no 2172

Differs from pyropia in the ground-colour being paler. Fore wing with the inner area beyond the antemedial line and the outer area dark golden copper-colour, leaving a marginal line and triangular patch of the ground-colour at outer angle, white-ringed black specks in cell and at its lower angle, the stigma small, its arms not filled in with white

Hab Sikhim Exp 34 millim

2676 Plusia ochreata, Wik Cat xxxiii, p 839, Moore, Lep Ceyl in, pl 151, fig 4, C & S no 2170

Differs from pyropia in the thorax being more suffused with fiery orange. Fore wing with the copper colour confined to the apical part of outer area, the stigma consisting of a fuscous and white streak from the costa at the antemedial line to the postmedial line at vein 2, these being almost erect and the latter sinuous

Hab Hongkong, Formosa, Sunla, Nagas, Nilgins, Ceylon.Exp 30 millim

2677 Plusia impulsa, Wik Cat axxiii, p. 838, Hmpsn Ill Het ix, pl 162, fg 11, C & S no 2162

Head and thorax fiery orange, abdomen pale Fore wing row grey, with brilliant coppers red patches at end of cell, on inner medial area, and at apex, the antemedial line oblique and silvery, the Y-mark small, with the tail disconnected from the arms, some slight silvery marks at end of cell, the postmedial line evenly curved, the submarginal line slightly sinuous Hind wing pale fuscous

Hab Travancore, Ceylon Exp 30 millim

2678 Plusia orichalcea, Fabr Sp Ins 11, p 227
Phalæna chrysitina, Martyn, Psyche, pl 21, Moore, Lep Ceyl
111, pl 152, fig 7, C & S no 2155
Noctua chryson, Lsp Schmett 1v, pl 141, fig 2
Phalæna ceriera, Sonerby, Brit Misc pl 29
Noctua aunifera, Hubn Lur Schmett pt 98, fig 463

Head, collar, and vertex of thorax reddish orange, tegulæ and fore wing pale red-brown, the last with the subbasal, ante- and postmedial waved lines very indistinct, fine, and white, the submarginal line irregularly lumilate, the orbicular and remform with fine white outlines, the whole of the outer area, except the inner margin, occupied by a brassy golden patch which extends towards the base below median nervure, further in chrystina than in the typical form. Hind wing pale at base, the outer area fuscous

Larva Bluish green, with a few short dorsal hairs, slender dorsal white lines and a prominent lateral line Food-plant, Coreopsis

Hab Azores, Madeira, Canaries, St Helena, Ascension; S Africa, Mauritius, Arabia, Japan, China, Formosa, throughout India and Ceylon Exp 44 millim

2679 Plusia hebetata, Butl Ill Het vii, p 71, pl 131, fig 1

Head, thorax, and fore wing pinkish, the last with diffused brown subbasal, antemedial, and medial bands, the postinedial line almost straight, the irregularly dentate submarginal line with a coppery patch beyond it. Abdomen and hind wing brownish fuscous

Hab Japan, Kulu Exp 44 millim

2680 Plusia agramma, Guen Noct ii, p 327, Moore, Lep Ceyl iii, pl 152, fig 3, 3 a (larva), C & S no 2153
Plusia inchoata, Wlh Cat xxxiii, p 841

Differs from hebetata in being grey-brown without the rosy tinge. Fore wing with the patches bronze instead of coppery, the postmedial line sinuous

Larva green, with lateral black spots, some short black pointed spines on the back, stoutest on the 4th, 5th, 6th, 7th, and 11th somites, a prominent white subdorsal and lateral waved line Food-plants, Cucui bitaceæ

Hab Japan, Sikhim, Bombay, Canara, Ceylon, Java, Aus-

tralia Eap 40 millim

2681 Plusia fracta, Wik Cat xii, p 920 Plusia placida, Moore, Lep Ceyl ni, p 73, pl 151, fig 10, C & S no 2174

Head, thorax, and fore wing brownish grey, in the darker specimens olive-grey. Fore wing with the ante- and postmedial lines straight and oblique, the former obsolete above median nervure, the area between them below the cell bronzy, the submarginal line slightly sinuous, an almost marginal bronzy straight line Abdomen and hind wing fuscous

Hab Abyssinia, Congo, N India, Nilgiris, Ceylon. Eap

38-42 millim

2682. Plusia tetragona, Wil. Cat x11, p 932, C & S no 2179
Plusia semivita, Moore, P Z S 1867, p 63, pl 6, fig 13,
C & S no 2176
Plusia purissima, Butl Ill Het 11, p 35, pl xxx1, fig 11

Differs from fracta in the head, thorax, and fore wing being whitish grey, the last with the markings fuscous instead of bronzy,

a silvery Y-mark with the arms small

In Himalayan typical forms the antemedial line is prominent from the costa to median nervure, obsolete in the Japanese form, which also has the tail of the Y-mark separated from the arms, and a dark mark at lower angle of cell

Hab Japan, Dharmsála, Kulu Erp 40 milhm

575 PLUSIA.

2683 Plusia modesta, Hubn Beitr 1, p 1, pl 1, fig 1 A Noctua illustris, Fabi Mant Ins p 164 Plusia illustris, var uralensis, Ev Bull Mosc xv, 1842, p 553 Euchaleia cashmii ensis, Moore, P Z S 1881, p 376, C & S no 2186

Grey, the head, collar, and tegulæ tinged with pale fulvous, abdomen grey, with the dorsal tufts fulvous Fore wing grey, typically with a rosy tinge, in the Himalayan form cashmirensis greenish, cupreous fulvous patches on costa, medial area below vein 2, and near outer angle, the subbasal line indistinct, the pale double ante- and postmedial lines almost straight, the pale submarginal line slightly sinuous, orbicular and remiform with slight pale edges, a white U-mark below the cell, slight cupreces patches on outer margin at apex and centre, a pale marginal line Hind wing fuscous, darker in cashmirensis Underside ochreous, the disk of fore wing fuscous

Hab Europe, Kulu, Kashmir Erp 36-40 millim

2684 Plusia oxygramma, Hubn Zuti p 37, figs 769, 770 Abrostola transfixa, Will Cat xii, p 884, C & S no 2185 Plusia subchalybea, Will Cat xxiii, p 838 Abrostola nubila, Moore, Lep Ceyl 111, p 549

Head, thorax, and fore wing dull brown with a grey tinge, the subbasal, ante- and postmedial waved lines brownish and indistinct, the orbicular narrow, elongate, and brown, with white edges, a white streak on median nersure conjoined to a brown streak with pale edges on vein 2, terminating at the postmedial line, a dark dentate submarginal line Hind wing fuscous, pale at base

The form subchalybea differs in the orbicular not being brown, and in having some dark suffusion on vein 2 instead of the brown pale-edged streak

Hab Georgia (Asia), Japan, China, NW Himalayas, Nil-

giris, Ceylon, Java, Australia, Fiji Evp 42 millim

2685 Plusia anargyra, Guen Noct 11, p 351 Plusia spoliata, Wik Cat vii, p 923, Hmpsn Ill Het viii. pl 149, fig 7 Plusia reticulata, Moore, Lep Ath p 148, C & S no 2175

Head and thorax red-brown, with white tips to the scales. abdomen pale brown Fore wing brown, with a purplish tinge and golden suffusion towards outer margin, the markings slight, indistinct, and formed of golden scales, the subbasal, ante- and postmedial lines sinuous, the orbicular and remiform small, an elongate V-mark on vein 2, an irregularly dentate submarginal, and more regular and prominent marginal line Hind wing brown underside pale, with cell-spot and postmedial line, beyond which is some fuscous suffusion

Hab Congo, Madagascar, Sikhim, Nilgiris Eip 36 millim

576 NOCTULDÆ

2686 Plusia lectula, Wik Cat xv, p 1679, Moore, Lep Ceyl m, pl 146, fig 2, C & S no 2164
Plusia kalitura, Feld Reis Nov pl 110, fig 24

Head and thorax dark red-brown and grey, abdomen pale Fore wing dark red-brown and purplish grey, an antemedial rufous line, a broad white streak along median nervure and vein 2 as far as the postmedial line, which is bent outwards at vein 5, a large red-brown patch above the streak, reniform grey with white lines on its inner and outer edges, some red-brown submarginal dentate marks, with a white streak below those near apex, a rufous submarginal line, two fine marginal lines and a white line through the cilia. Hind wing pale fuscous

Hab Bengal, Canara, Ceylon Evp 28 millim.

SECT II Male with the hind femora heavily tufted with hair

2687 Plusia mneofusa, Swinh MS

d Head, collar, and vertex of thorax orange-fulvous, tegulæ and abdomen brown, the last with parts of the anal tuft pale. Fore wing purplish grey, with the medial area below the cell brassy gold and patches on the outer area below the apex and at outer angle, the subbasal, antemedial, medial, and postmedial lines nearly straight, the orbicular and reniform very indistinct, an irregularly sinuous submarginal line. Hind wing brown

Hab Sikhim, Khásis. Exp 40 millim. Type in B M

SECT III (Polychrysia). Palpi with the 3rd joint long and clothed with long hair to near apex

2688 Plusia crassipalpus, Swinh MS

Head and thorax dark brown with a pink tinge, the tufts on metathorax fulvous, abdomen fuscous, with the dorsal tufts redbrown. Fore wing brown suffused with pink, a basal triangular dark mark with silver specks on its edges, a curved double antemedial line, a silvery Y-mark with its tail detached from the arms, a silvery speck at lower angle of cell, a dark bar beyond cell, a double waved postmedial line, an irregularly sinuous submarginal line, the outer edge of the antemedial line below cell, the areas below end of cell and before submarginal line cupreous. Hind wing pale at base, fuscous towards outer margin, Underside of fore wing fuscous, the outer margin pale, hind wing pale, with broad postmedial fuscous band.

The Java specimen is much paler, without pink suffusion on

fore wing and thorax

Hab. Khasis, Java Exp 38-42 millim Type in B M

Genus ABROSTOLA

Abrostola, Ochs Schmett Eur 1v, p 88 (1816)

Type, A triplasia, Linn, from Europe

Range Nearctic and Palmarctic regions, S Africa, Japan,

Differs from Plusia in having raised tufts of scales on the fore wing and the outer angle not hooked

2689 Abrostola anophioides, Moore, Lep Ath p 148, C & S

Fuscous brown Abdomen of male with dense lateral tufts of



Fig 322 Abrostola anophioides, &

Fore wing with the basal and outer areas slightly paler, slightly waved ante- and postmedial lines, the former with red-brown on its inner edge, the latter on its outer, the orbicular. reniform, and a mark below the cell large and indistinct, with narrow outlines of laised black scales, an indistinct pale waved submarginal line and black mar-

ginal line Hind wing with the basal area palest, an indistinct postmedial line, the underside suffused with grey, with a cellspot and waved postmedial line

Hab Sikhim Erp 48 millim

Genus PLUSIODONTA

Plusiodonta, Guen Noct 11, p 359 (1852) Deva, Wik Cat xu, p 962 (1857)

Type, P compressipalpis, Guen, from N America Range U States, W Indies, S Africa, Madagascar, Japan,

China, throughout India, Ceylon, and Burma, Andamans, Java,

Australia

Palpi inpturned, the second joint roughly scaled and reaching the vertex of head or above it, thorax and abdomen slender. Fore wing with the apex somewhat acute, the without tufts outer margin more or less angled at vein 4, the inner margin with tufts of scales at centre and outer angle, the margin being excised between them Legs smoothly scaled

The typical section has the antennæ bipectinated in the male

Larvæ with two pairs of abdominal prolegs

SECT II (Deva) Male with the antennæ minutely ciliated

2690 Plusiodonta cœlonota, Koll Hugel's Kaschmir, iv, p 482 Plusiodonta chalsytoides, Guen Noct 11, p 360, Moore, Lep Ceyl 11, pl 153, figs 1, 1a (larva), C & S no 2182 Deva conducens, H lk Cat 21, 963

VOL II

Plusia agens, Feld Reis Nov pl 110, fig 32 Plusiodonta auripicta, Moore, Lep Ath p 150, C & S no 2181

Head and collar rufous, thorax and abdomen grey-brown Fore wing red-brown suffused with golden bronze and more or less irrorated with blue-grey scales, indistinct antemedial and medial waved lines, an oblique double sinuous postmedial line angled below the costa, the orbicular and reniform indistinct, a very irregularly sinuous submarginal golden band with dark edges,



Fig 323
Plusiodonta cælonota, o

interrupted at vein 3 Hind wing dark fuscous, the cilia pale

The form auripicta is rather darker and more marked with blue-grey

Larva purplish black with grey specks and streaks, the 7th and 11th somites with pinkish patches, head reddish

Hab Throughout India, Cevlon, and Burma, Andamans, Java Exp 32-36 millim

Genus TINOLIUS.

Tinohus, Wlk Cat 111, p 621 (1855)

Type, T eburneigvita, Wlk

Range Sikhim, throughout continental India, Ceylon, and Burma, Andamans, Cambodia

Palpi obliquely porrect and hairy, antennæ bipectinated in

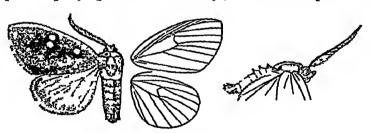


Fig 324 — Tenoleus eburneigutta, of

male, chiated in female, thorax without tufts, abdomen with dorsal tufts. Forewing with vein 10 from beyond the end of areole Larvæ with two pairs of abdominal prolegs.

2691 Tinohus eburneigutta, Wlk Cat m, p 621, Moore, Lep Ceyl m, pl 171, figs 10, 10 a (larva), C & S no 773

Head, thorax, and abdomen crimson, collar, meso- and metathorax with paired white-edged black spots, abdomen with segmental lateral black bands. Fore wing bright red-brown, a white speck at base, a round white spot at middle of cell and two at end of it—two or three white marks on centre of inner margin, costa and cilia crimson Hindwing and underside crimson Legs

crimson, spotted with black

Larva (p 428) purplish black, with yellow transverse lines and spots to the somites, 4th, 5th, and 6th somites with long black spatulate dorsal filaments, the head spotted and streaked with yellow Pupa dark red-brown marked with golden yellow

Hab Sikhim, Sylhet, throughout peninsular India and Ceylon,

Burma, Andamans Exp, o 46, 2 58 millim

2692 Tinolius quadrimaculatus, Wil. Cat xxxi, p 281
Tinolius zingha, Swinh Trans Ent Soc 1890, p 185, pl vi, fig 12

d Differs from eburneigutta in the white spot at upper angle of cell of fore wing being small or obsolete, the hind wing with the base and inner margin crimson, the remainder fuscous brown

Hab Sikhim, Moulmein, Beeling, Cambodia Exp 52-60

mıllım

2693 Tinohus hypsana, Swinh P Z S 1889, p 405

d Differs from eburneigutta in the ground-colour of the head, thorax, and abdomen being orange, of the fore wing fawn-colour, of the hind wing whitish

Hab Sikhim, Khásis Exp 72 millim

Genus CALESIA

Calesia, Guen Noct 111, p 257 (1852)
Pasipeda, Wik Cat xx, p 1794 (1858)
Mecyra, Wik Cat xxxii, p 979 (1865)
Carandana, Moore, Lep Ceyl 111 p 45 (1885)

Type, C dasyptera, Koll

Range Kilimanjaro, China, throughout India, Cevlon, and

Burma, Java, Philippines, Taboga

Palpi upturned and smoothly scaled, the 2nd joint reaching vertex of head, the 3rd long and naked, antennæ ciliated and with bristles to the joints in male Thorax, abdomen, and legs smoothly scaled Hind wing with the cell very short

Larvæ with two pairs of abdominal prolegs

SECT I (Pasipeda) Fore wing with no tuft of hair in male, veins 8 and 9 anastomosing to form an areole

A Antennæ of male without a tuft of hair at middle

2694 Calesia hæmorrhoa, Guen Noct 111, p 258, C & S no 2638 Calesia patna, Feld Reis Nov pl 117, ng 17

Varies in colour from dark red-brown to dark fuscous, palpi scarlet, abdomen scarlet except at base, coxe of fore legs and tible scarlet. Fore wing with a slight grey speck on the discocellulars, a very indistinct postmedial line bent inwards below the cell, a

waved submarginal line. Hind wing with indistinct medial and postmedial lines

Hab India, Ceylon, and Burma. Evp 46 millim

2695. Calesia rufipalpis, Will Cat xv, p 1795, C & S no 2639

Differs from hæmorrhoæ in the abdomen being only slightly suffused with crimson, the anal tuft fulvous, the legs brown, the head, thorax, and wings very dark red-brown, the last with a few scattered pale scales and a white spot at end of cell of fore wing, the cilia whitish at tips

Hab Travancore, Ceylon Esp. 44 millim.

2696 Calesia phæosoma, Hmpsn Ill Het viii, p 90, pl 147, fig 2

Differs from rufipalpis in being fuscous brown, the abdomen without any red, the cilia not white-tipped

Hab Nilgiris Exp 42 millim

2697 Calesia satellitia, Moore, Lep Ccyl 111, p 184, pl 171, figs 6, 6 a (larva), C & S no 2640.

Head, collar, coxe of fore legs, and them fulvous, the tibes with a terminal black spot, thorax and base of abdomen fuscous brown, the remainder of abdomen crimson above. Wings fuscous brown, fore wing with a large white spot at end of cell and a submarginal irregular series of smaller spots.

Larva dark purplish brown, some short dark hairs on anterior and posterior somites, some yellow transverse stripes on the segments, each of which has a pair of divergent dorsal spots, some lateral and translations and larva rellevis and translations.

lateral spots and streaks, head and legs yellow-spotted Hab W and S India, Ceylon Erp 44 millim

B Antennæ of male thickened, with a large tuft of long hair before middle

2698 Calesia roseiceps, n. sp

d Head, collar, and abdomen bright crimson, thorax and wings uniform grey-brown

Hab Sikhim, 3000 feet (Moller) Evp 50 millim Type in

coll Elwes

SECT II Fore wing with a very large tuft of hair beyond the cell below the costa in male, and the costal nervules curved

A. (Calesia). Fore wing with veins 8, 9, 10 stalked in both sexes

2699. Calesia dasyptera, Koll Hugel's Kaschmir, iv, p 476, C & S

Erebus leucostagma, Koll Hugel's Kaschmu, 1v, p 476, Moore, Lep Ceyl 111, pl 171, fig 5

Calesia comosa Guen Noct III, p 258, pl 21, fig 7 Calesia stigmoleuca, Guen Noct III, p 258.

d Greyish red-brown, the head, collar, and abdomen crimson, coxe of fore legs and tibize of fore and mid legs crimson.

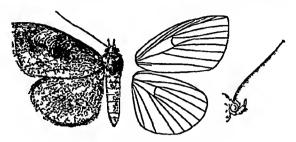


Fig 325 —Calesia dasyptera, & }

Q with a white spot at end of cell of fore wing Hab China throughout India, Ceylon, and Burma Exp, 3 50, ♀ 40 millim

B Male with veins 8, 9, 10 of fore wing stalked, female with veins 8 and 9 anastomosing to form an areole

2700 Calesia fuscicorpus, Hmpsn Ill Het viii, p 90, pl 147, figs 8, 9

Differs from dasyptera in being greyer, the abdomen not

Hab Nilgiris, Travancore, Ceylon Eap, ♂ 50, ♀ 40 millim

C Male with vein 5 of the fore wing from upper angle of cell, veins 8, 9, 10 stalked, female with vein 5 from lower angle of cell, veins 7, 8, 9, 10 stalked

2701 Calesia flabellifera, Moore, P Z S 1878, p 849, Hmpsn Ill Het 12, pl 165, figs 2, 8, C & S no 2648

Differs from dasyptera in the antennæ being white, the colour bright red-brown, the wings irrorated with white scales, fore wing with indistinct medial and waved submarginal line. Hind wing with the cilia white-tipped

Hab Ceylon, Tenasserim Exp, ♂ 48, ♀ 40 millim

D (Carandana) Male with veins 8 and 9 of fore wing anastomosing to form an areole

2702 Calesia fasciculosa, Wik Cat xv, p 1760, Hmpsn Ill Het ix, pl 165, fig 11, C & S no 1852
Calesia cirius, Feld Reis Nov pl 108, fig 44

of pure white, tibiæ spotted with black. Fore wing with the outer half suffused with pale fulvous, a black subapical spot beyond the tuft, three black specks on the costa

Hab Travancore, Ceylon, Java, Philippines Evp 36 millim

582

- E (Mecvra) Male with the fore wing shorter than the hind wing, the inner margin much lobed and forming a continuous curve with the outer margin, the apex somewhat acute, veins 8 and 9 anastomosing to form an areole in both sexes
- 2703 Calesia gastropachoides, Guen Noct 111, p 258, C & S no 2644 Mecyra invaria, Will Cat xxxiii p 980

Pale reddish brown, the palpi and anal tuft with a fulyous tinge Fore wing with an indistinct postmedial line

2 more fuscous brown, the wings slightly irrorated with white scales, a white spot at end of cell of fore wing

Hab Bengal, Upper Tenasserm, Java Exp, of 44, ♀ 40 millim

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